



Northeast Site Solutions
Denise Sabo
4 Angela's Way, Burlington CT 06013
203-435-3640
denise@northeastsitesolutions.com

December 1, 2021

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Tower Share Application
528 Wheelers Farm Road, Milford CT 06460
Latitude: 41.248430
Longitude: -73.079075
Site# 876320_Crown_Dish

Dear Ms. Bachman:

This letter and attachments are submitted on behalf of Dish Wireless LLC. Dish Wireless LLC plans to install antennas and related equipment to the tower site located at 528 Wheelers Farm Road in Milford, Connecticut.

Dish Wireless LLC proposes to install three (3) 600/1900/2190 MHz antenna and six (6) RRUs, at the 86-foot level of the existing 120-foot monopole tower, one (1) Fiber cables will also be installed. Dish Wireless LLC equipment cabinets will be placed within 7x5 lease area. Included are plans by Hudson Design Group, dated October 22, 2021 Exhibit C. Also included is a structural analysis prepared by Crown Castle, dated May 27, 2021, confirming that the existing tower is structurally capable of supporting the proposed equipment. Attached as Exhibit D. This facility was approved by the City of Milford on March 4, 1997. Please see attached Exhibit A.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies 16-50aa, of Dish Wireless LLC intent to share a telecommunications facility pursuant to R.C.S.A. 16-50j-88. In accordance with R.C.S.A., a copy of this letter is being sent to Benjamin G Blake, Mayor for the City of Milford, David B. Sulkis, City Planner and Executive Secretary of the P&Z Board, as well as the tower owner (Crown Castle) and property owner (Village Foundation Inc).

The planned modifications of the facility fall squarely within those activities explicitly provided for in R.C.S.A. 16-50j-89.

1. The proposed modification will not result in an increase in the height of the existing structure. The top of the tower is 120-feet; Dish Wireless LLC proposed antennas will be located at a center line height of 86-feet.
2. The proposed modifications will not result in the increase of the site boundary as depicted on the attached site plan.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed local and state criteria. The incremental effect of the proposed changes will be negligible.



4. The operation of the proposed antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. As indicated in the attached power density calculations, the combined site operations will result in a total power density of 80.24% as evidenced by Exhibit F.

Connecticut General Statutes 16-50aa indicates that the Council must approve the shared use of a telecommunications facility provided it finds the shared use is technically, legally, environmentally, and economically feasible and meets public safety concerns. As demonstrated in this letter, Dish Wireless LLC respectfully indicates that the shared use of this facility satisfies these criteria.

A. Technical Feasibility. The existing monopole has been deemed structurally capable of supporting Dish Wireless LLC proposed loading. The structural analysis is included as Exhibit D.

B. Legal Feasibility. As referenced above, C.G.S. 16-50aa has been authorized to issue orders approving the shared use of an existing tower such as this tower in Milford. Under the authority granted to the Council, an order of the Council approving the requested shared use would permit Dish Wireless LLC to obtain a building permit for the proposed installation. Further, a Letter of Authorization is included as Exhibit G, authorizing Dish Wireless LLC to file this application for shared use.

C. Environmental Feasibility. The proposed shared use of this facility would have a minimal environmental impact. The installation of Dish Wireless LLC equipment at the 86-foot level of the existing 120-foot tower would have an insignificant visual impact on the area around the tower. Dish Wireless LLC ground equipment would be installed within the existing facility compound. Dish Wireless LLC shared use would therefore not cause any significant alteration in the physical or environmental characteristics of the existing site. Additionally, as evidenced by Exhibit F, the proposed antennas would not increase radio frequency emissions to a level at or above the Federal Communications Commission safety standard.

D. Economic Feasibility. Dish Wireless LLC will be entering into an agreement with the owner of this facility to mutually agreeable terms. As previously mentioned, the Letter of Authorization has been provided by the owner to assist Dish Wireless LLC with this tower sharing application.

E. Public Safety Concerns. As discussed above, the tower is structurally capable of supporting Dish Wireless LLC proposed loading. Dish Wireless LLC is not aware of any public safety concerns relative to the proposed sharing of the existing monopole. Dish Wireless LLC intentions of providing new and improved wireless service through the shared use of this facility is expected to enhance the safety and welfare of local residents and individuals traveling through Milford.

Sincerely,

Denise Sabo

Denise Sabo
Mobile: 203-435-3640
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com



NSS

NORTHEAST
SITE SOLUTIONS

Turnkey Wireless Development

Attachments cc:

Benjamin G Blake, Mayor
City of Milford
70 West River Street
Milford, CT 06460

David B. Sulkis, City Planner
City of Milford
70 West River Street
Milford, CT 06460

Village Foundation Inc (property owner)
528 Wheelers Farm Road
Milford CT 06461

Crown Castle, Tower Owner (tower owner)

Exhibit A

Original Facility Approval



City of Milford, Connecticut

THIS IS TO CERTIFY THAT Sprint PCS

WAS GRANTED A SPECIAL PERMIT AMENDMENT

BY THE MILFORD PLANNING & ZONING BOARD ON MARCH 4, 1997

FOR PROPERTY LOCATED AT 528 WHEELERS FARMS ROAD

MAP 104 BLOCK 915 PARCEL 13

IN THE CITY OF MILFORD, COUNTY OF NEW HAVEN, STATE OF CONNECTICUT

FOR WHICH VILLAGE FOUNDATION, INC. ARE THE OWNERS.

THE SPECIAL PERMIT AMENDMENT WAS GRANTED TO:

construct a 120' telecommunications monopole and antenna with ancillary support facilities, i.e., 10' graveled access drive and fenced equipment area 20' x 27', at 528 Wheelers Farms Road, aka Boys Village, parcel 13, block 915, Assessor's map 104, of which Village Foundation, Inc. is the owner. This approval shall be in accordance with plans prepared by O'Brien and Gere Engineers, Inc. Said plans consisting of three sheets, Title Sheet dated December, 1996; Site Plan dated 12/4/96; Detail Plan and Elevations dated 11/18/96. With the following stipulations: construction and site development shall comply with Inland Wetland Office letter dated 12/21/96 and Permit #IWJR96-080; Fire Department letter dated 1/21/97; Director of Public Works memo dated 2/4/97 and United Technologies Sikorsky Aircraft letter dated 4/1/97 RE: Review of Sikorsky Aircraft Corporation Flight Operations related to the proposed telecommunication monopole location.

"NO VARIANCE, SPECIAL PERMIT OR SPECIAL EXCEPTION GRANTED PURSUANT TO CHAPTER 124 OF ANY SPECIAL ACT SHALL BE EFFECTIVE UNTIL A COPY THEREOF...IS RECORDED IN THE LAND RECORDS OF THE TOWN IN WHICH SUCH PREMISES ARE LOCATED."

P.A. 75-317

RECORDED ~~5163~~ 6-12-97

CITY CLERK REC. NO. 5163

Nº 10574

PLANNING & ZONING BOARD

BY: *Waide E. Pierce*
WADE E. PIERCE
EXECUTIVE SECRETARY

Exhibit B

Property Card



Property Information

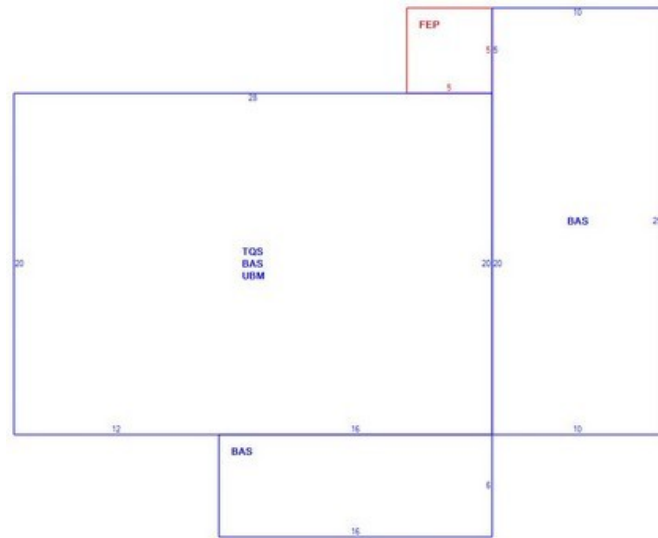
Property Location	528 WHEELERS FARMS RD
Owner	VILLAGE FOUNDATION INC THE
Co-Owner	06-00
Mailing Address	528 WHEELERS FARM RD MILFORD CT 06461
Land Use	904R PVT SCHOOL MDL-01
Land Class	E
Zoning Code	DO25
Census Tract	

Neighborhood	GG
Acreage	11.34
Utilities	All Public,Public Sewer
Lot Setting/Desc	UNKNOWN UNKNOWN
Book / Page	00259/0563
Fire District	2

Photo



Sketch



Primary Construction Details

Year Built	1900
Building Desc.	PVT SCHOOL
Building Style	Conventional
Building Grade	Average
Stories	2
Occupancy	1.00
Exterior Walls	Vinyl Siding
Exterior Walls 2	NA
Roof Style	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Walls	Drywall/Sheet
Interior Walls 2	NA
Interior Floors 1	Carpet
Interior Floors 2	NA

Heating Fuel	Gas
Heating Type	Hot Water
AC Type	XF Per Sq Ft
Bedrooms	00
Full Bathrooms	0
Half Bathrooms	1
Extra Fixtures	0
Total Rooms	0
Bath Style	Updated
Kitchen Style	NA
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	0

(*Industrial / Commercial Details)


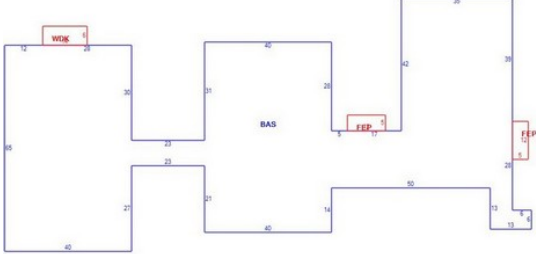
Building Use	Residential
Building Condition	4
Sprinkler %	NA
Heat / AC	NA
Frame Type	NA
Baths / Plumbing	NA
Ceiling / Wall	NA
Rooms / Prtns	NA
Wall Height	NA
First Floor Use	NA
Foundation	NA



City of Milford, CT

Property Listing Report

Map Block Lot 104 915 13 Bldg # 2 Sec # 1 PID 21152 Account 019893

<p>Photo</p> 	<p>Sketch</p> 
-------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------

Primary Construction Details

Year Built	1983
Building Desc.	Commercial
Building Style	School/College
Building Grade	AVERAGE
Stories	1
Occupancy	1.00
Exterior Walls	Concr/Cinder
Exterior Walls 2	Pre-Fab Wood
Roof Style	Flat
Roof Cover	Tar & Gravel
Interior Walls	Drywall/Sheet
Interior Walls 2	NA
Interior Floors 1	Carpet
Interior Floors 2	Vinyl/Asphalt

Heating Fuel	Gas
Heating Type	Forced Air-Duc
AC Type	Central
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	

(*Industrial / Commercial Details)

Building Use	PVT SCHOOL MDL-94
Building Condition	4
Sprinkler %	NA
Heat / AC	HEAT/AC SPLIT
Frame Type	STEEL
Baths / Plumbing	AVERAGE
Ceiling / Wall	SUS-CEIL & WL
Rooms / Prtns	AVERAGE
Wall Height	12.00
First Floor Use	NA
Foundation	NA

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	7807	7807
Porch, Enclosed, Finished	120	0
Deck, Wood	84	0

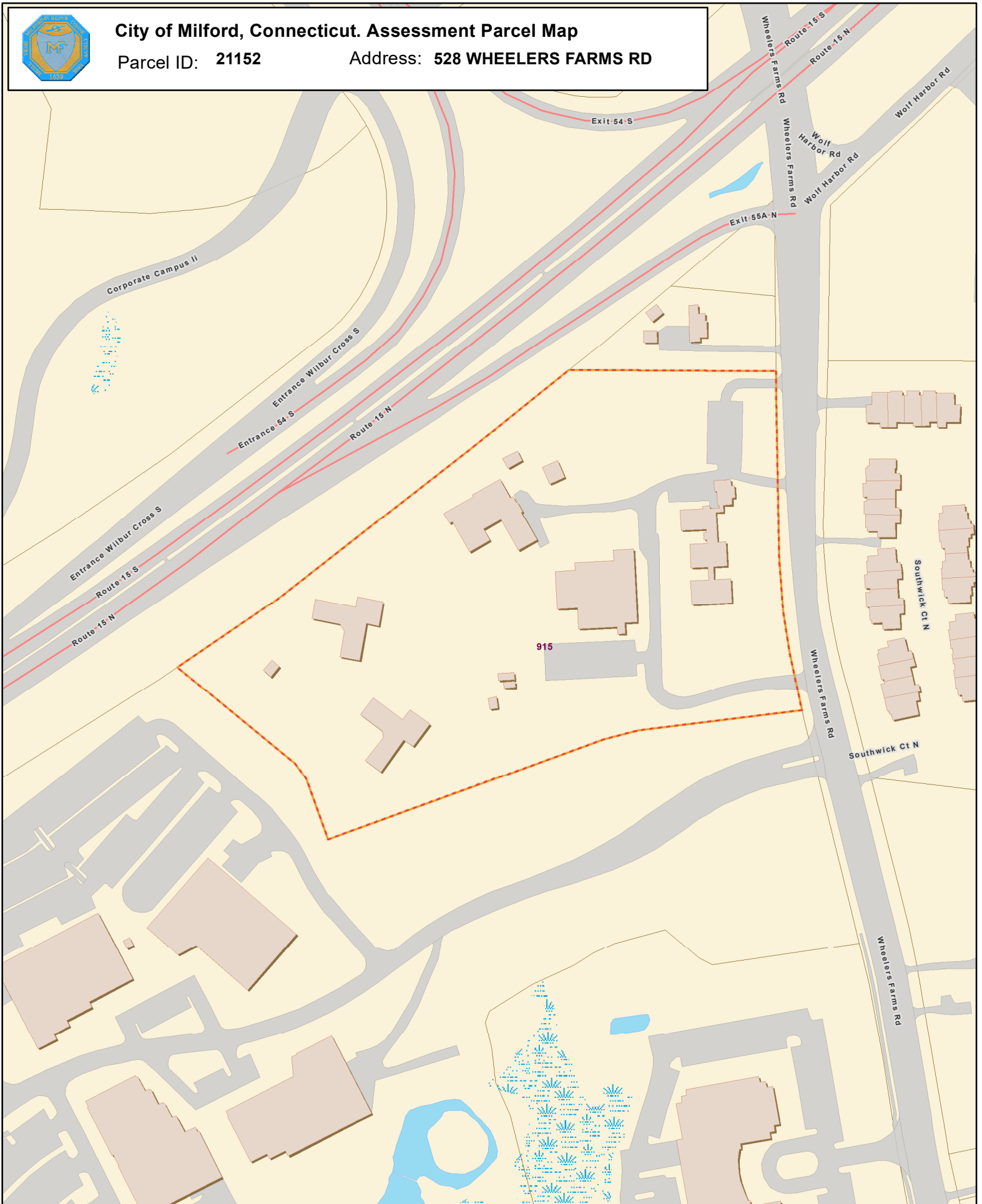
Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area	8011	7807



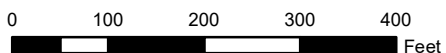
City of Milford, Connecticut. Assessment Parcel Map

Parcel ID: 21152

Address: 528 WHEELERS FARMS RD



1 inch = 200 feet



Disclaimer: This map is for informational purposes only All information is subject to verification by any user. The City of Milford and its mapping contractors assume no legal responsibility for the information contained herein.

Map Produced: April 2021

Exhibit C

Construction Drawings



DISH Wireless L.L.C. SITE ID:

BOHVN00167A

DISH Wireless L.L.C. SITE ADDRESS:

**528 WHEELERS FARM ROAD
MILFORD, CT 06460**

SCOPE OF WORK	
THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:	
TOWER SCOPE OF WORK:	
<ul style="list-style-type: none"> • INSTALL (3) PROPOSED PANEL ANTENNAS 1 PER SECTOR) • INSTALL (1) PROPOSED ANTENNA PLATFORM MOUNT • INSTALL PROPOSED JUMPERS • INSTALL (6) PROPOSED RRUs (2 PER SECTOR) • INSTALL (1) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP) • INSTALL (1) PROPOSED HYBRID CABLE • INSTALL (1) CABLE ACCESS PORT 	
GROUND SCOPE OF WORK:	
<ul style="list-style-type: none"> • INSTALL (1) PROPOSED METAL PLATFORM • INSTALL (1) PROPOSED ICE BRIDGE • INSTALL (1) PROPOSED PPC CABINET • INSTALL (1) PROPOSED EQUIPMENT CABINET • INSTALL (1) PROPOSED POWER CONDUIT • INSTALL (1) PROPOSED TELCO CONDUIT • INSTALL (1) PROPOSED TELCO-FIBER BOX • INSTALL (1) PROPOSED GPS UNIT • INSTALL (1) PROPOSED SAFETY SWITCH (IF REQUIRED) • INSTALL (1) PROPOSED FIBER NID (IF REQUIRED) • INSTALL (1) PROPOSED NEW 200A METER IN EXISTING SOCKET 	

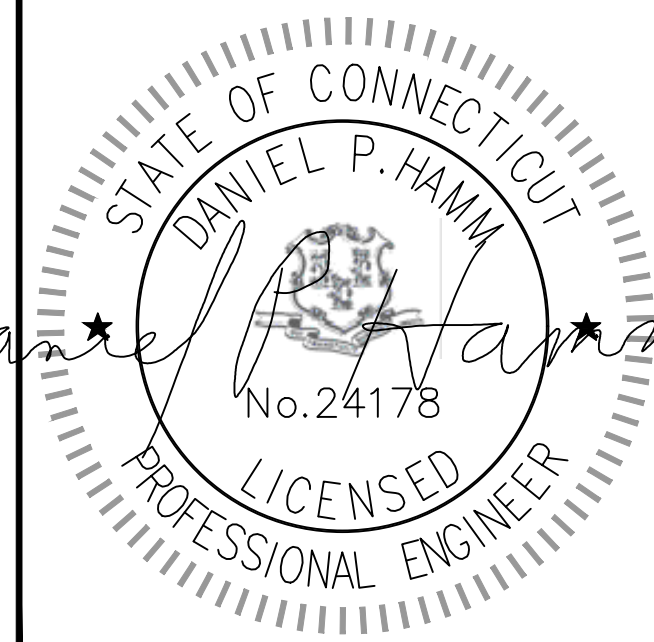
SITE INFORMATION	PROJECT DIRECTORY
PROPERTY OWNER: VILLAGE FOUNDATION INC THE ADDRESS: 528 WHEELERS FARM ROAD MILFORD, CT 06460	APPLICANT: DISH Wireless L.L.C. 5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120
TOWER TYPE: MONOPOLE	TOWER OWNER: CROWN CASTLE 2000 CORPORATE DRIVE CANONSBURG, PA 15317 (877) 486-9377
TOWER CO SITE ID: CCI BU# 876320	SITE DESIGNER: HUDSON DESIGN GROUP, LLC. 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 (978) 557 5553
COUNTY: NEW HAVEN	SITE ACQUISITION: JEANNE COTTRELL JEAN.COTTRELL@DISH.COM
LATITUDE (NAD 83): 41° 14' 54.35" N 41.248430	CONSTRUCTION MANAGER:
LONGITUDE (NAD 83): 73° 04' 44.67" W -73.079075	RF ENGINEER: TBD
ZONING JURISDICTION: CITY OF MILFORD, CT	
ZONING DISTRICT: D0-25	
PARCEL NUMBER: 104 915 13	
OCCUPANCY GROUP: U	
CONSTRUCTION TYPE: II-B	
POWER COMPANY: UNITED ILLUMINATING COMPANY	
TELEPHONE COMPANY: TDB	



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: KSBM	CHECKED BY: SMA	APPROVED BY: DPH
RFDS REV #:	2	

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C. PROJECT INFORMATION
**CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460**

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

SITE PHOTO



UNDERGROUND SERVICE ALERT CBYD 811
UTILITY NOTIFICATION CENTER OF CONNECTICUT
(800) 922-4455
WWW.CBYD.COM
CALL 2 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

DIRECTIONS

DIRECTIONS FROM DISH Wireless L.L.C. OFFICE/AIRPORT/DOWNTOWN:
BRADLEY INTERNATIONAL AIRPORT. SCHOEPHOESTER RD, WINDSOR LOCKS, CT 06096. CONTINUE TO EAST GRANBY. HEAD NORTH TOWARD BRADLEY INTERNATIONAL AIRPORT. SLIGHT LEFT ONTO BRADLEY INTERNATIONAL AIRPORT. FOLLOW I-91 S AND CT-15 S TO WELLINGTON RD IN MILFORD. TAKE EXIT 55 FROM CT-15 S. CONTINUE ONTO BRADLEY INTERNATIONAL AIRPORT CON. CONTINUE ONTO CT-20 E/BRADLEY INTERNATIONAL AIRPORT CON. TAKE THE EXIT ONTO I-91 S TOWARD HARTFORD. KEEP RIGHT TO STAY ON I-91 S. TAKE EXIT 17 TO MERGE ONTO CT-15 S. KEEP RIGHT TO STAY ON CT-15 S. FOLLOW SIGNS FOR W CROSS PKWY. TAKE EXIT 55 TOWARD WHEELERS FARM RD. TAKE WHEELERS FARM RD TO YOUR DESTINATION. CONTINUE ONTO WELLINGTON RD. TURN LEFT ONTO WHEELERS FARM RD. TURN RIGHT AT SOUTHWICK CT N. TURN RIGHT. DESTINATION WILL BE ON THE LEFT. 528 WHEELERS FARM RD MILFORD, CT 06461

VICINITY MAP



CONNECTICUT CODE OF COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES

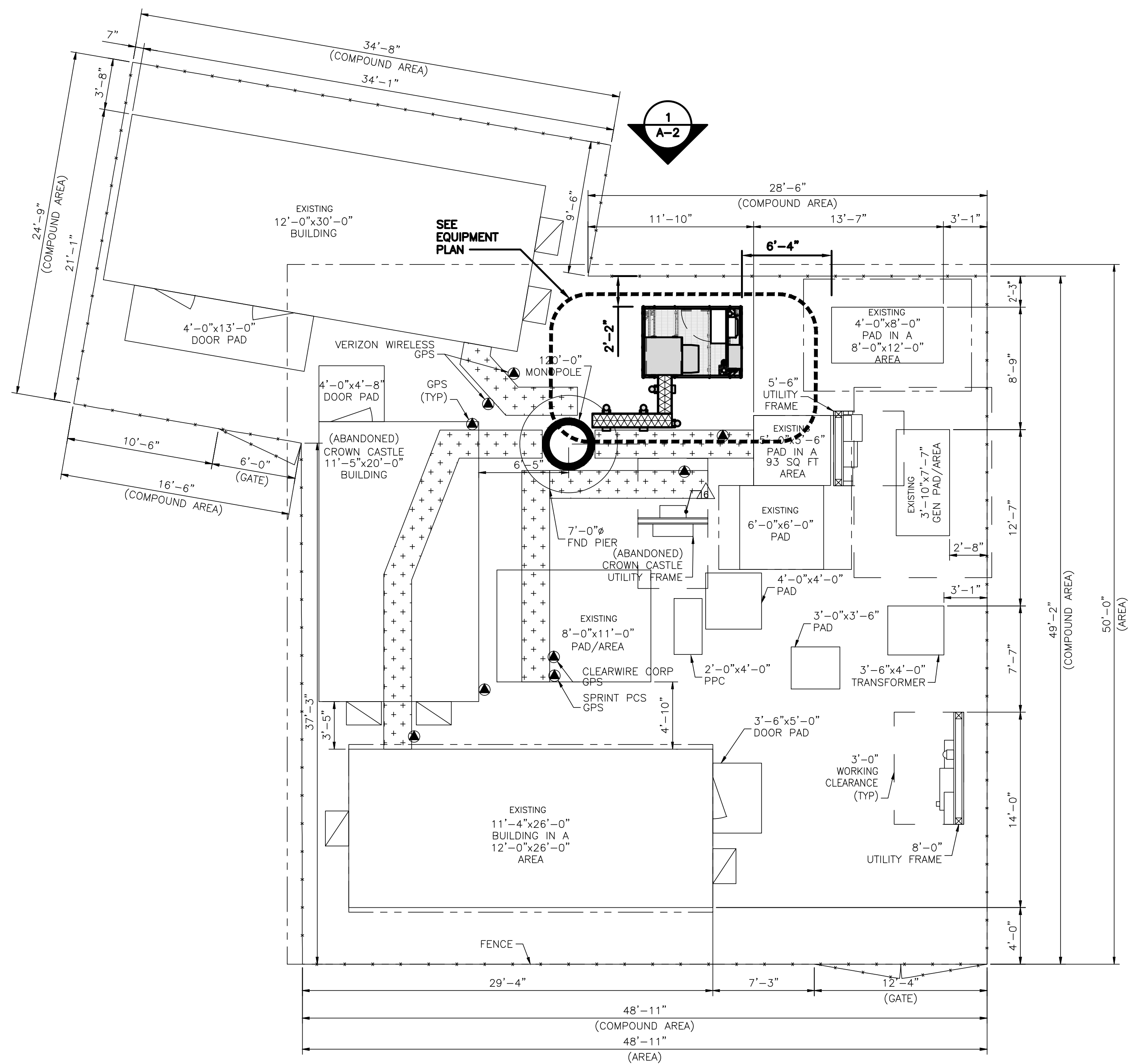
CODE TYPE	CODE
BUILDING	2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS
MECHANICAL	2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS
ELECTRICAL	2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS

SHEET INDEX

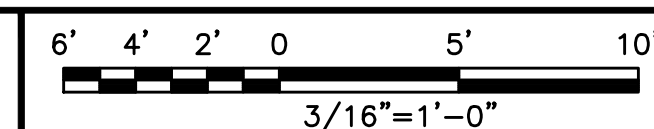
SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	COMPOUND AND EQUIPMENT PLANS
A-2	ELEVATION, ANTENNA LAYOUT AND SCHEDULE
A-3	EQUIPMENT PLATFORM AND H-FRAME DETAILS
A-4	EQUIPMENT DETAILS
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
GN-1	LEGEND AND ABBREVIATIONS
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



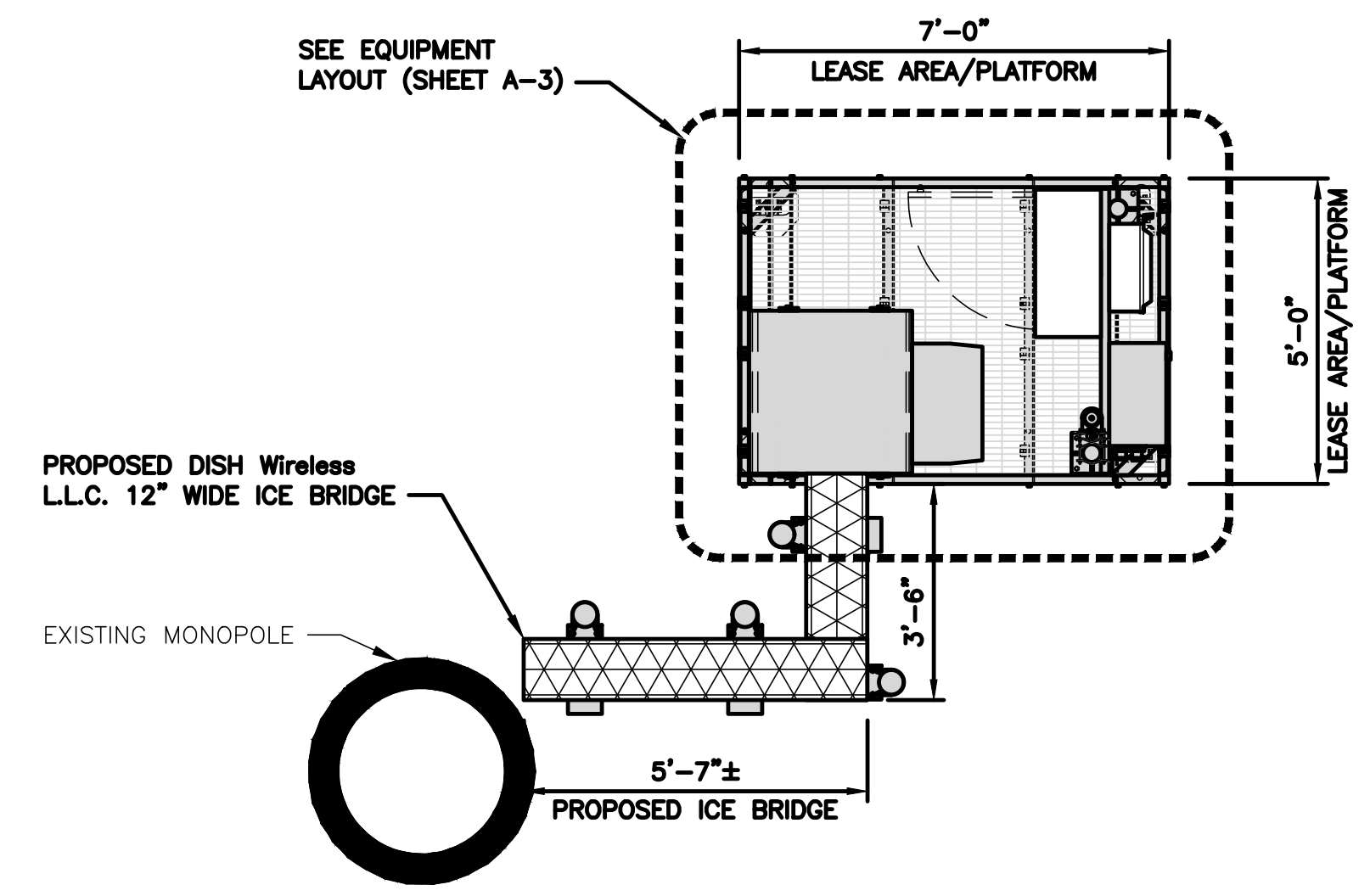
COMPOUND PLAN



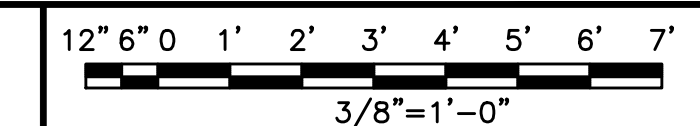
1

NOTES

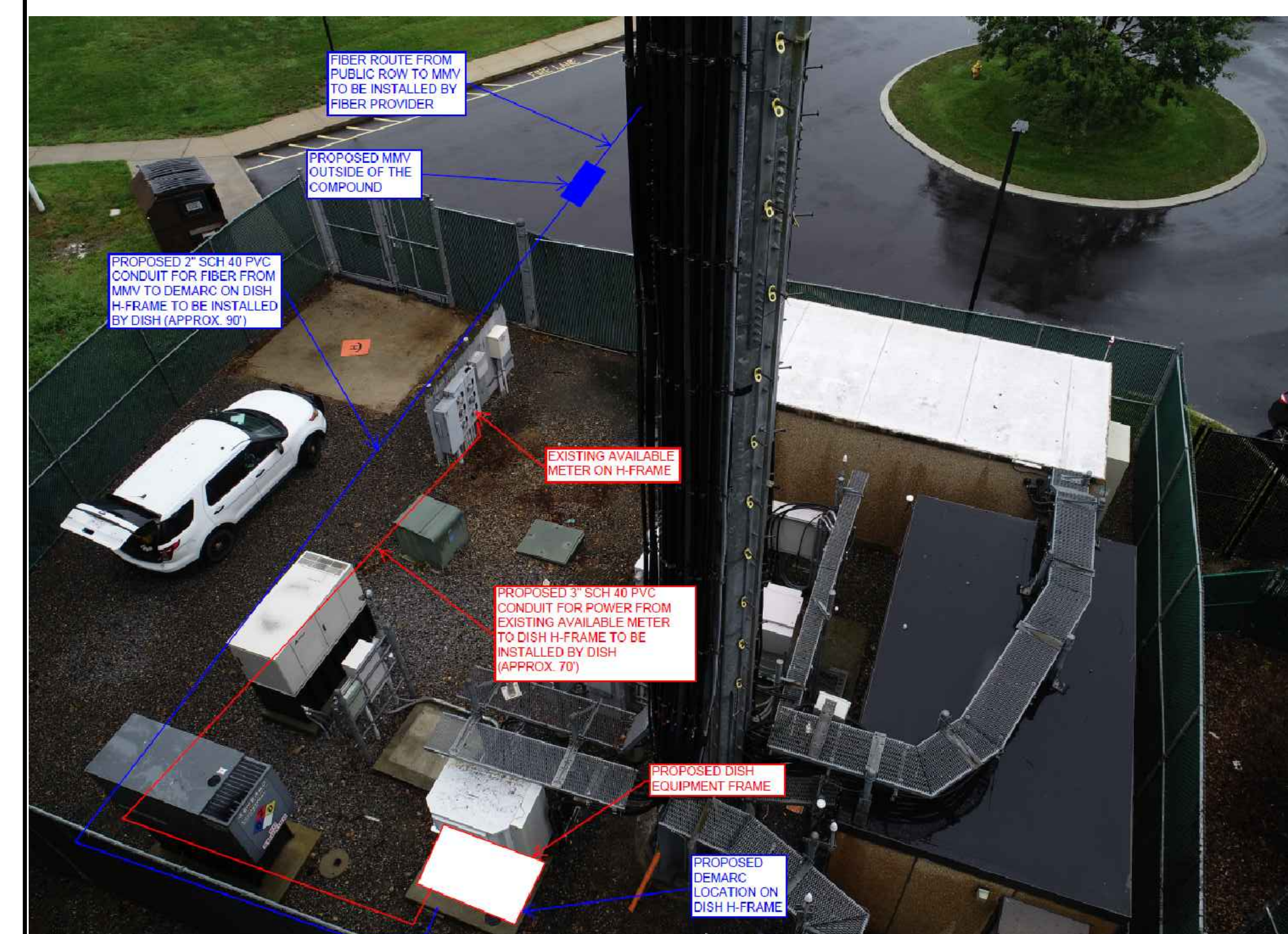
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



EQUIPMENT PLAN



2



POWER & TELCO RUN

NO SCALE

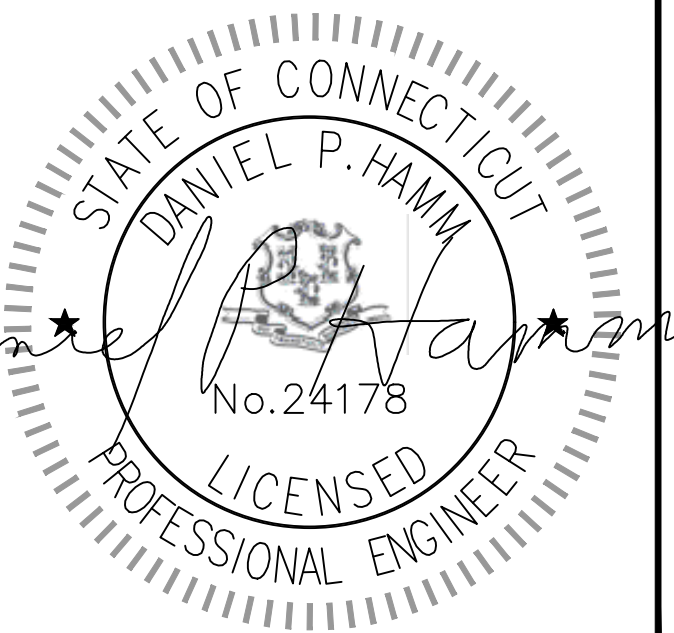
3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:
KSBM SMA DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

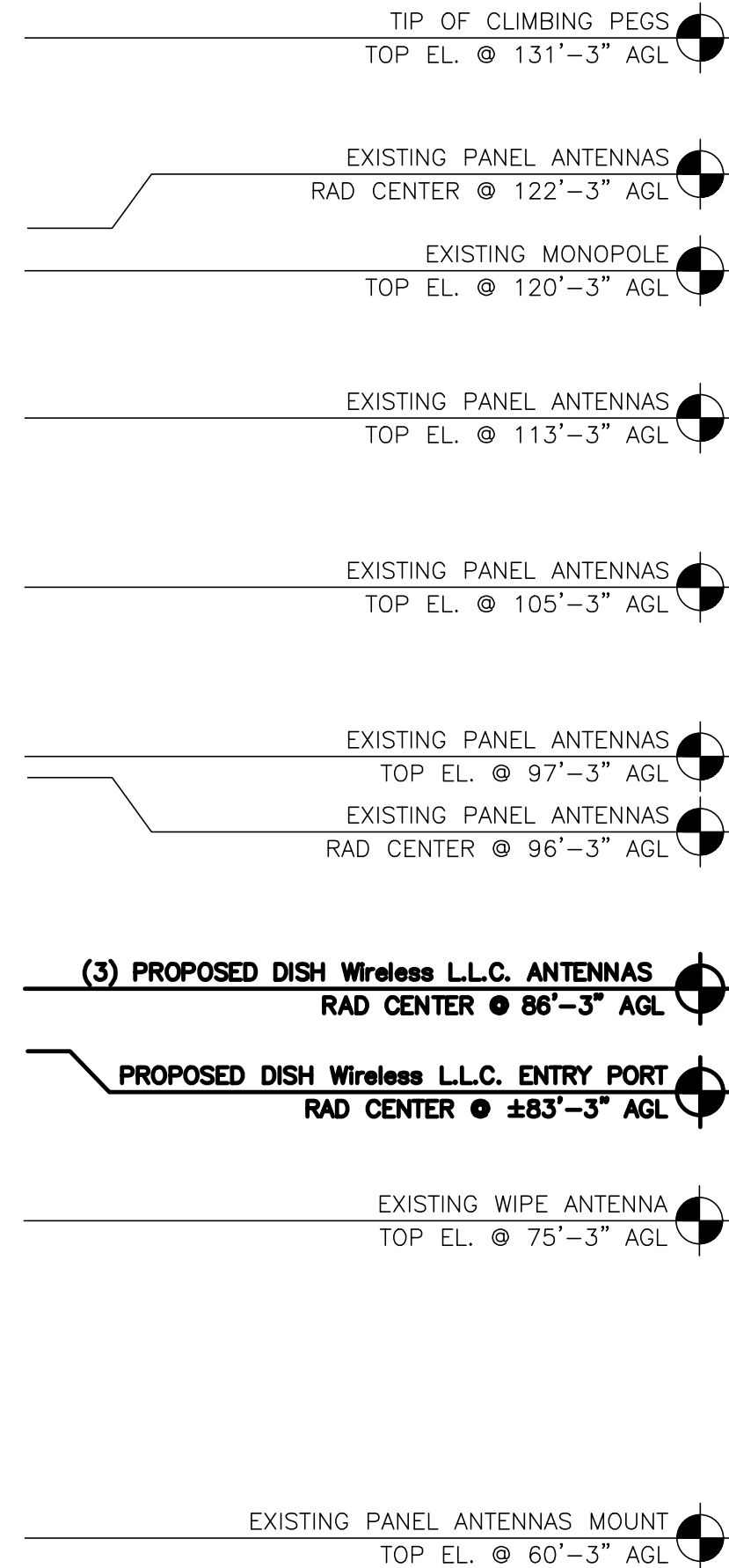
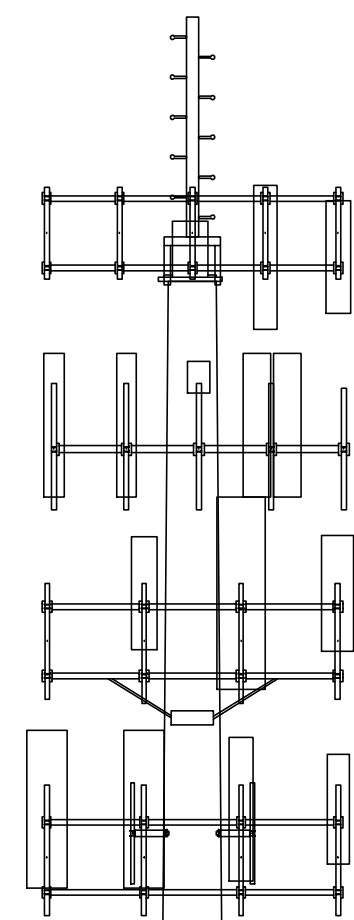
SHEET TITLE
OVERALL AND ENLARGED
SITE PLAN

SHEET NUMBER

A-1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.



PROPOSED 6"x9" O.D HAND HOLE RIM BY SITE PRO-1, P/N HHR69-G (WELD PER MANUFACTURES INSTRUCTIONS)

(1) PROPOSED DISH Wireless L.L.C. HYBRID CABLE ROUTED INSIDE POLE

EXISTING MONOPOLE

EXISTING ENTRY PORT

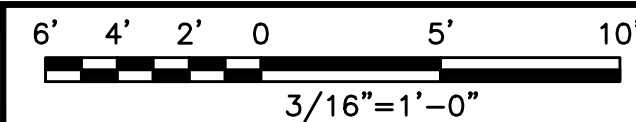
PROPOSED DISH Wireless L.L.C. ICE BRIDGE

PROPOSED DISH Wireless L.L.C. GPS UNIT

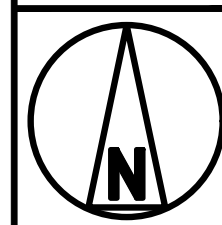
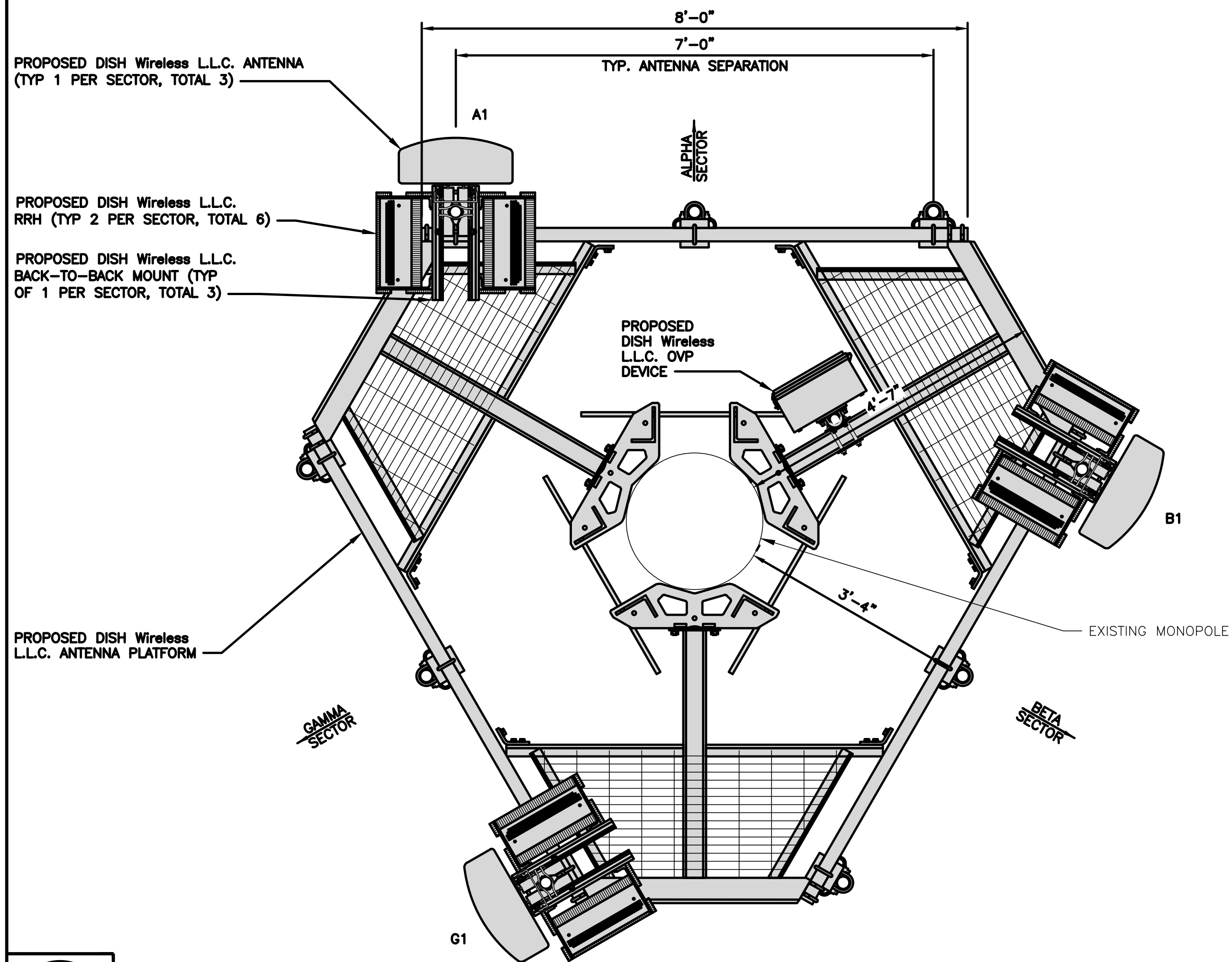
PROPOSED DISH Wireless L.L.C. EQUIPMENT ON PROPOSED STEEL PLATFORM



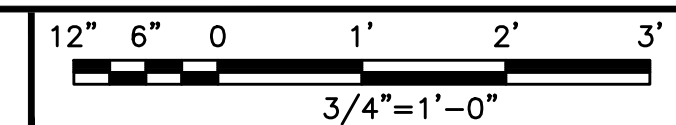
PROPOSED ELEVATION



1



ANTENNA LAYOUT



2

SECTOR	POSITION	ANTENNA						TRANSMISSION CABLE
		EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECHNOLOGY	SIZE (HxW)	AZIMUTH	RAD CENTER	
ALPHA	A1	PROPOSED	JMA WIRELESS/MX08FRO665-21	5G	20.0" x 11.0"	0°	86°-0"	(1) HIGH-CAPACITY HYBRID CABLE (120' LONG)
BETA	B1	PROPOSED	JMA WIRELESS/MX08FRO665-21	5G	20.0" x 11.0"	120°	86°-0"	
GAMMA	G1	PROPOSED	JMA WIRELESS/MX08FRO665-21	5G	20.0" x 11.0"	240°	86°-0"	

SECTOR	POSITION	RRH		NOTES
		MANUFACTURER - MODEL NUMBER	TECHNOLOGY	
ALPHA	A1	FUJITSU/TA08025-B604	5G	1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS. 2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.
	A1	FUJITSU/TA08025-B605	5G	
BETA	B1	FUJITSU/TA08025-B604	5G	
	B1	FUJITSU/TA08025-B605	5G	
GAMMA	G1	FUJITSU/TA08025-B604	5G	
	G1	FUJITSU/TA08025-B605	5G	

ANTENNA SCHEDULE

NO SCALE

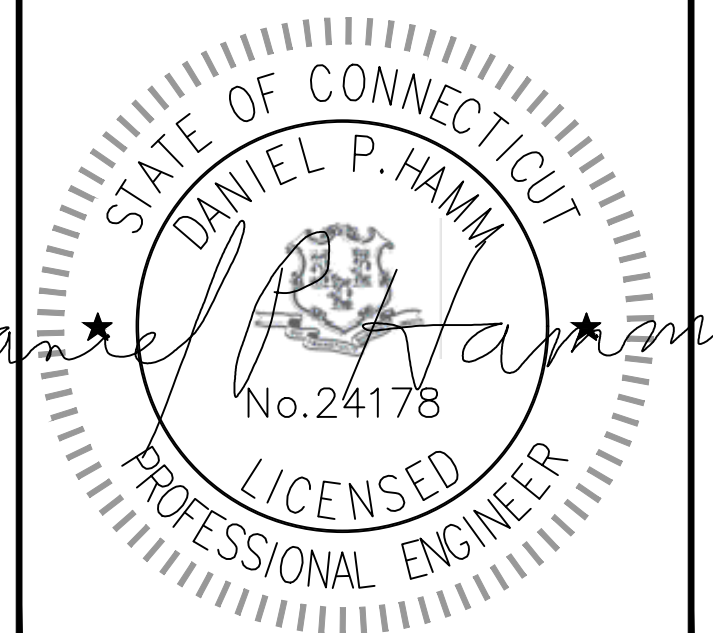
3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:
KSBM SMA DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C. PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
ELEVATION, ANTENNA LAYOUT AND SCHEDULE

SHEET NUMBER

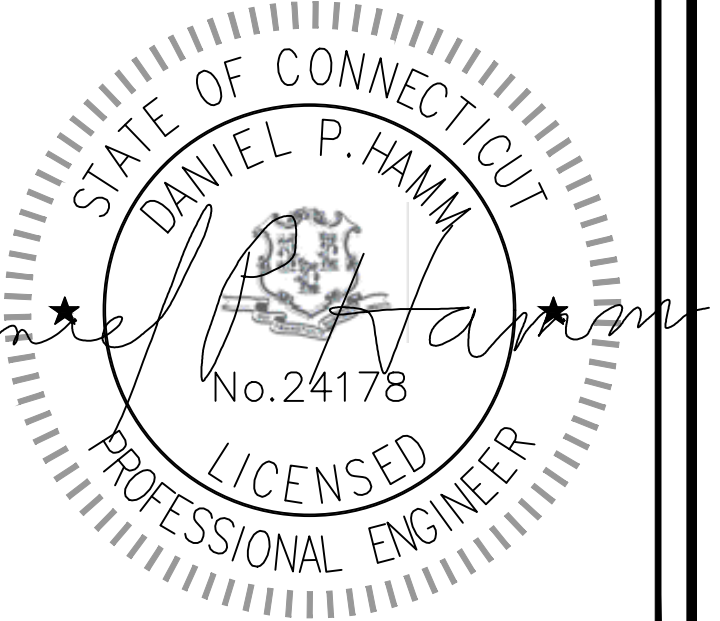
A-2



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:
KSBM SMA DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

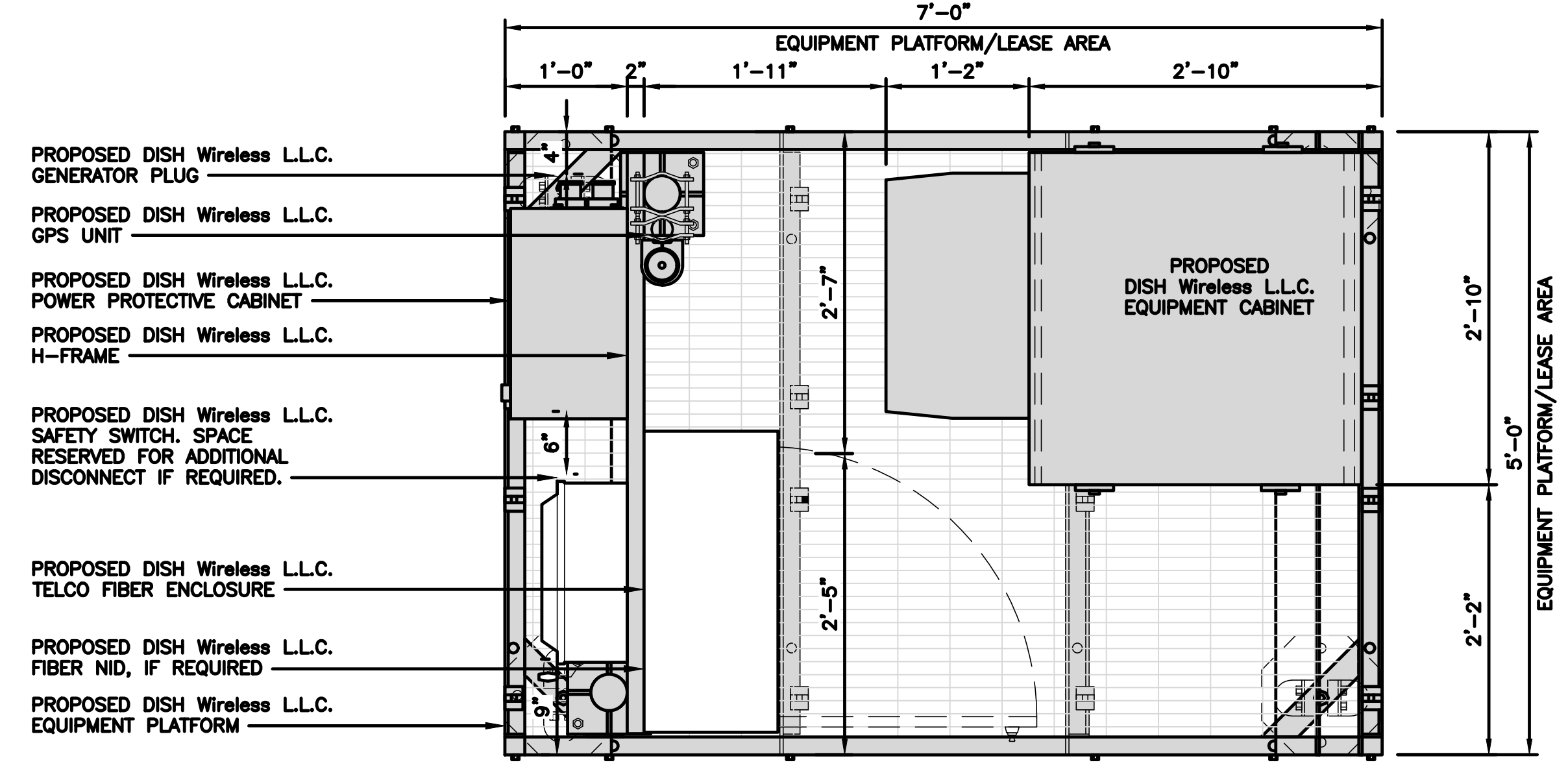
DISH Wireless L.L.C. PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
EQUIPMENT PLATFORM AND H-FRAME DETAILS

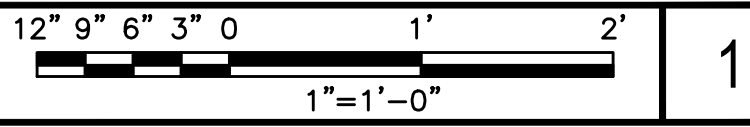
SHEET NUMBER
A-3

NOTES

1. CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
2. WEED BARRIER FABRIC TO BE ADDED AT DISCRETION OF DISH Wireless L.L.C. CONSTRUCTION MANAGER AT TIME OF CONSTRUCTION. ONE SHEET 8'x8' INSTALLED UNDER ALL FOUR FEET OF THE PLATFORM (4 MIL BLACK PLASTIC)
3. EQUIPMENT CABINET OMITTED FOR CLARITY

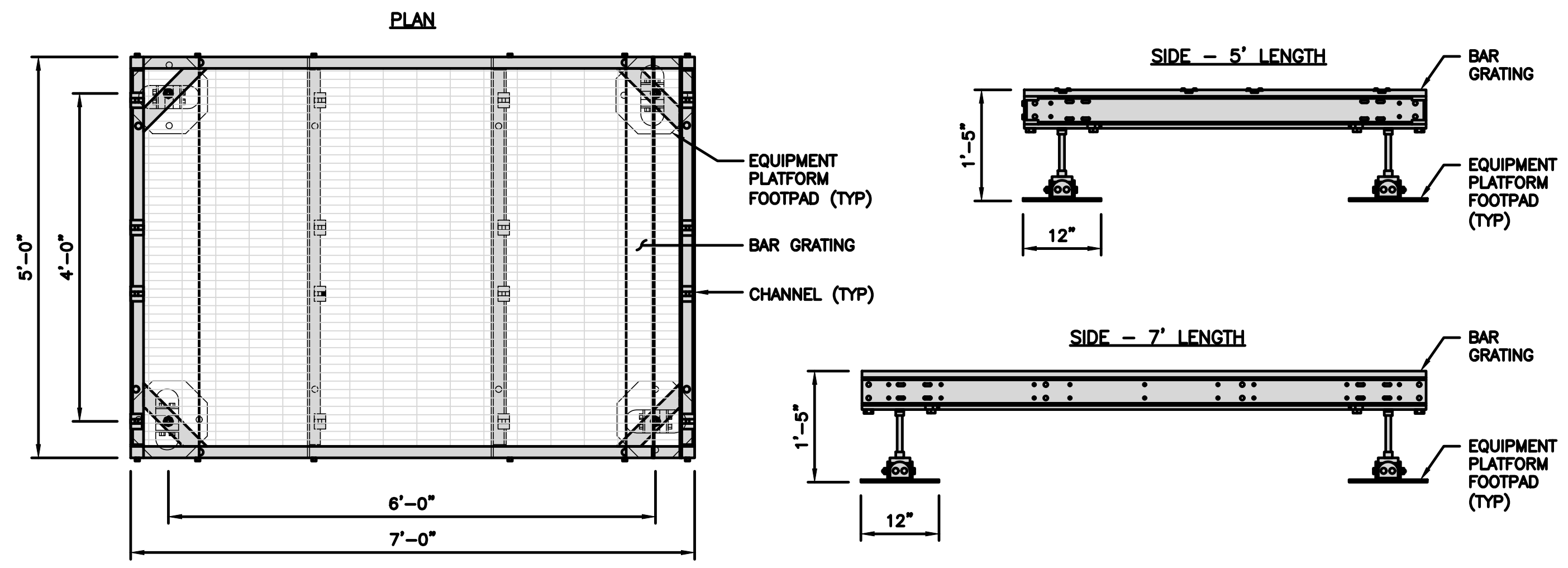


PLATFORM EQUIPMENT PLAN



COMMSCOPE MTC4045LP 5X7 PLATFORM	
DIMENSIONS (HxWxD)	16"x84"x60"
TOTAL WEIGHT	423 LBS

NOTE:
GC TO PROVIDE EXTENDED THREAD FOR PLATFORM IF REQUIRED HEIGHT EXCEEDS 17"

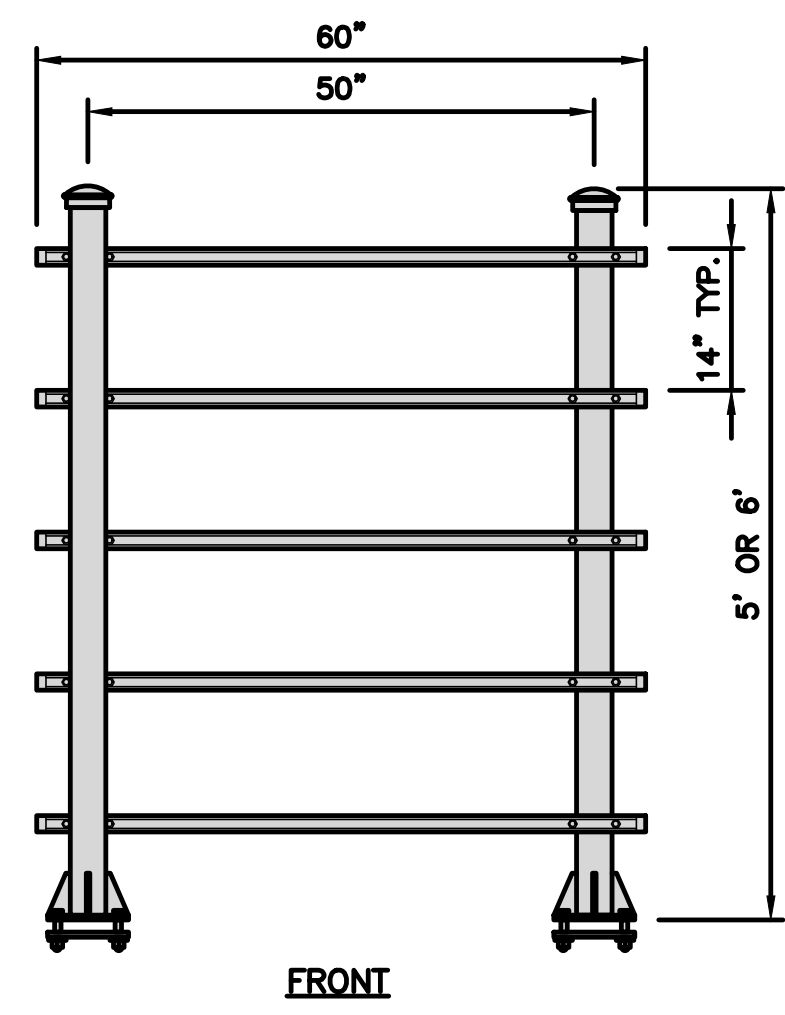
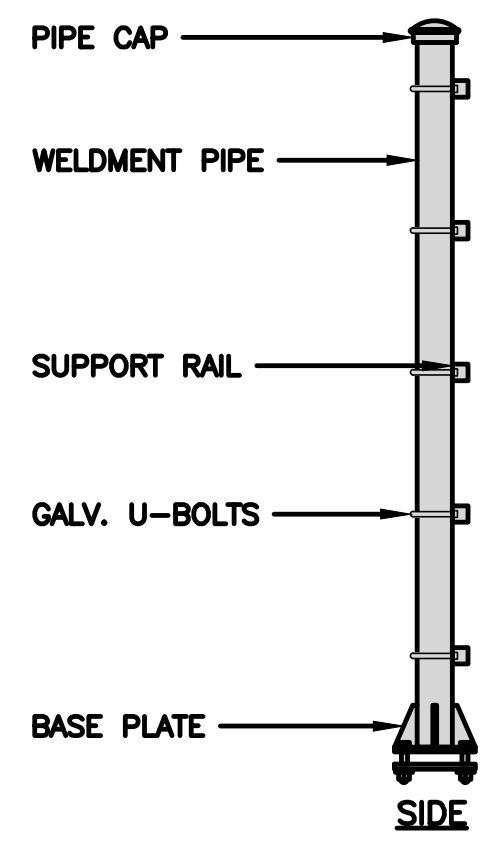


PLATFORM DETAIL

NO SCALE 2

COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs

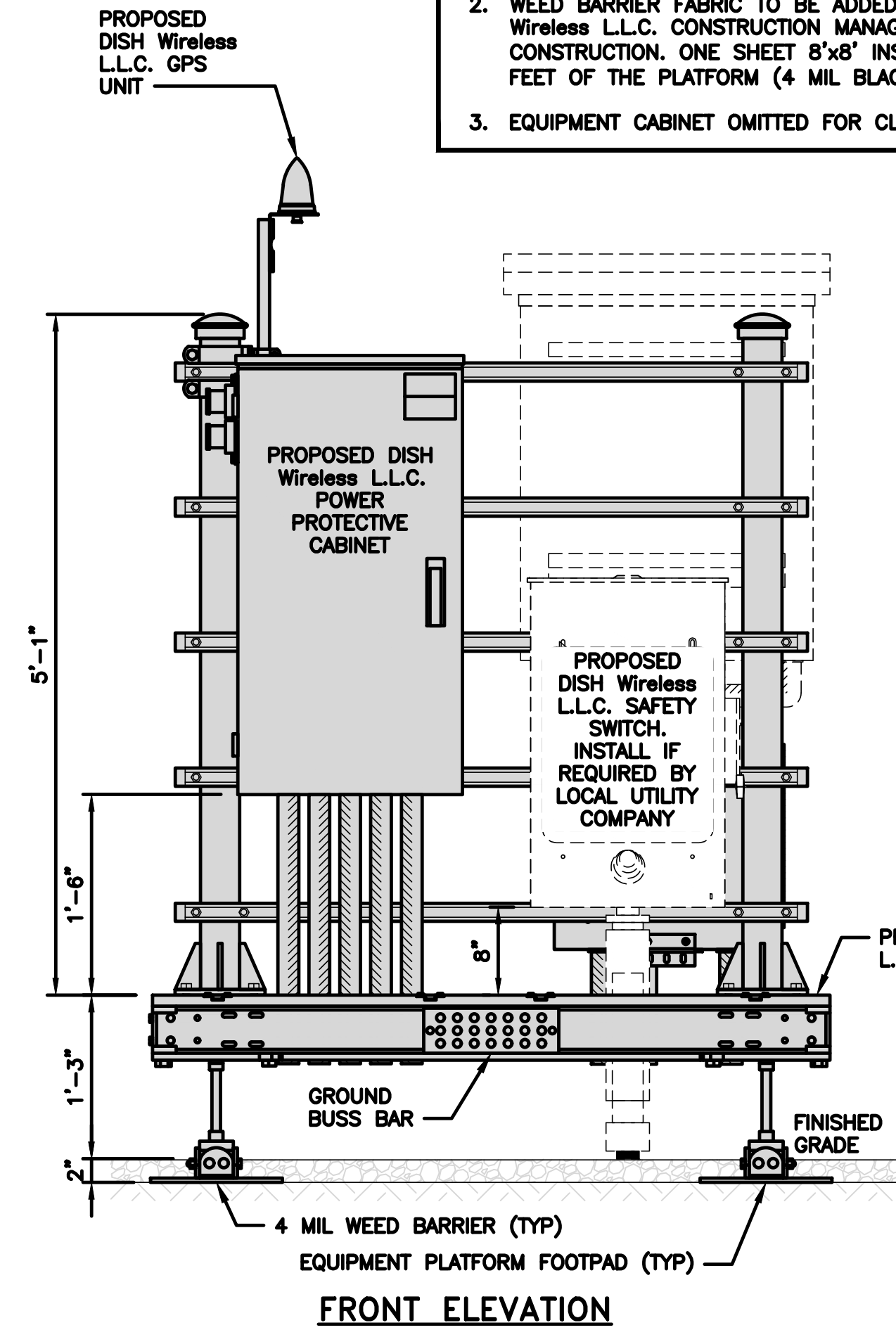
NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT



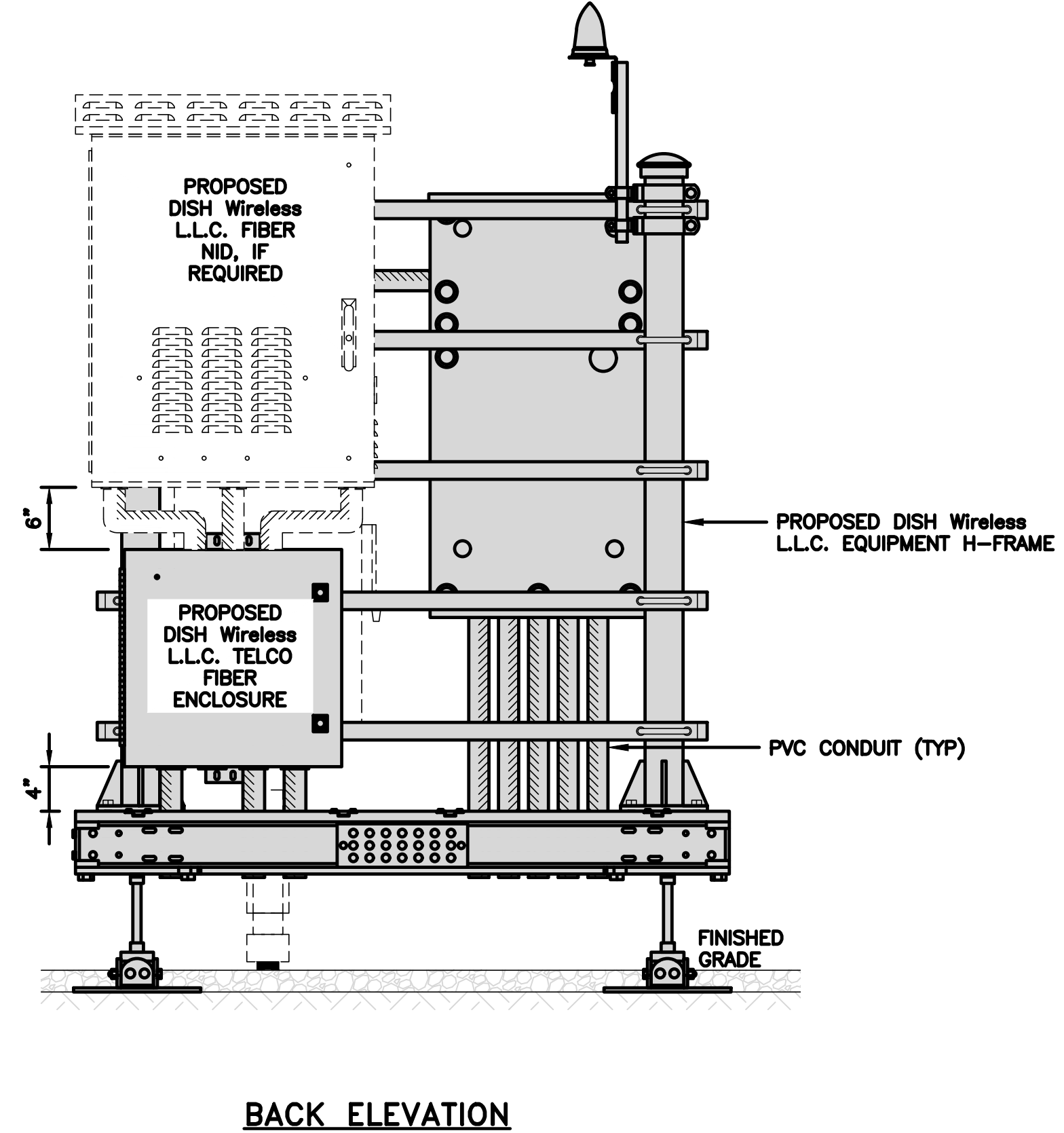
H-FRAME DETAIL

NO SCALE 3

NOT USED

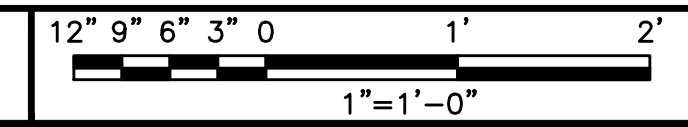


FRONT ELEVATION



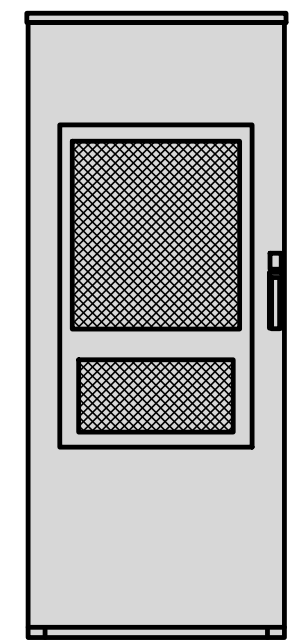
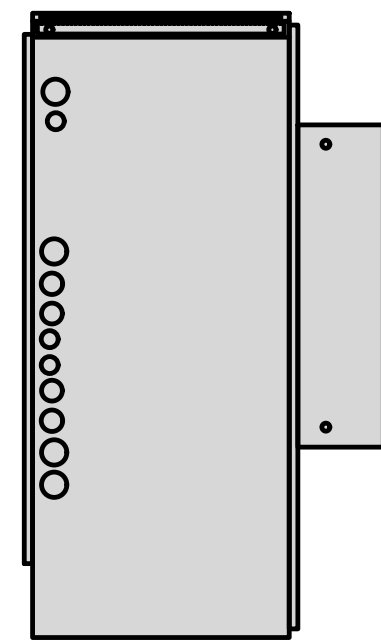
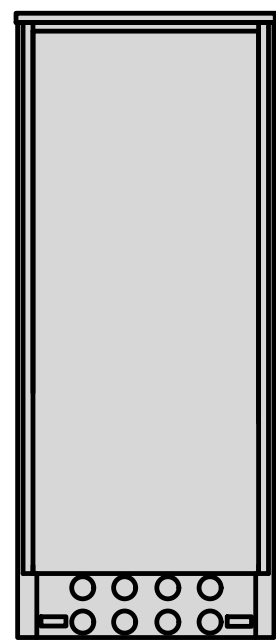
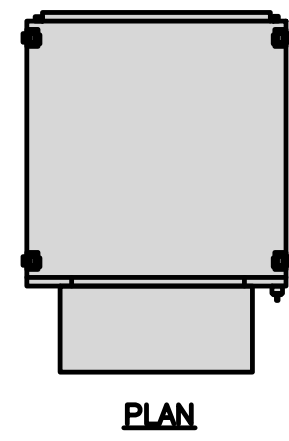
BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION



NO SCALE 5

ENERSYS HEX 20000059996	
DIMENSIONS (HxWxD)	73"x30"x32"
POWER SYSTEM	-48V ALPHA/600A
HEATER	800W
TOTAL WEIGHT (EMPTY)	376 lbs

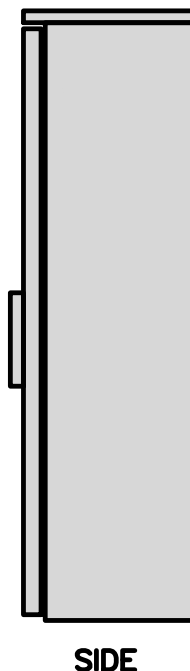
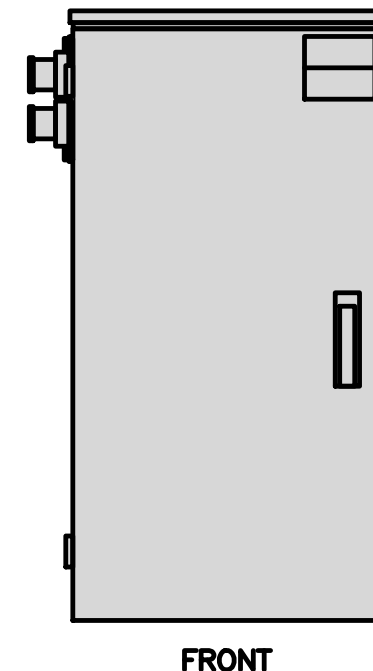
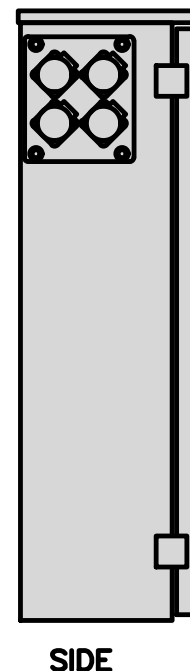
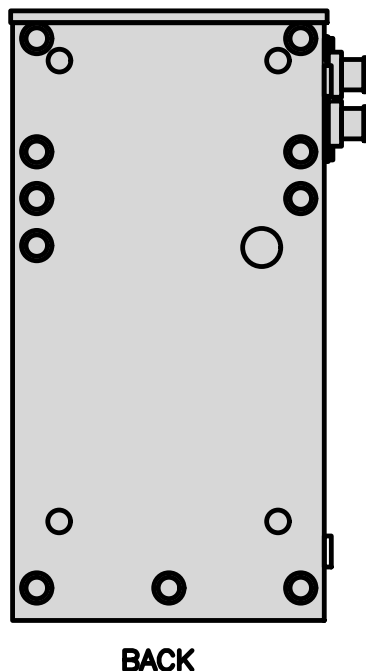
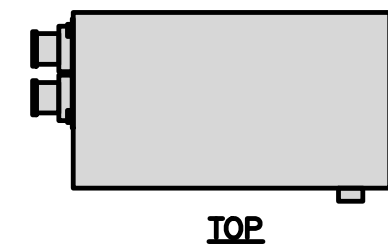


CABINET DETAIL

NO SCALE

1

RAYCAP PPC RDIAC-2465-P-240-MTS	
ENCLOSURE DIMENSIONS (HxWxD)	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

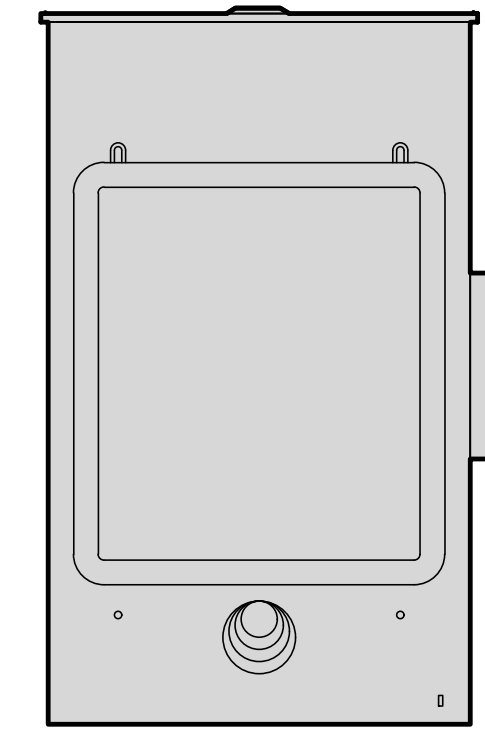
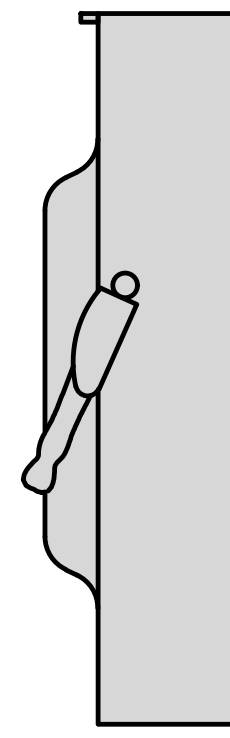
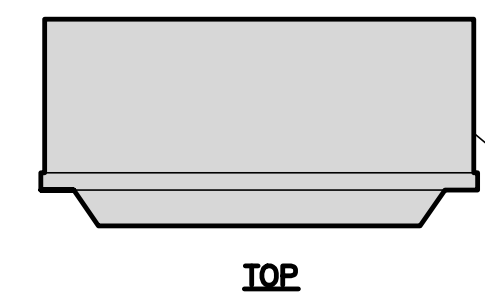


CABINET DETAIL

NO SCALE

2

SQUARE D SAFETY SWITCHES D224NRB	
ENCLOSURE DIM (HxWxD)	29.25"x19.00"x8.50"
ENCLOSURE TYPE	NEMA 3R RAINPROOF
UL LISTED	FILE E-2875

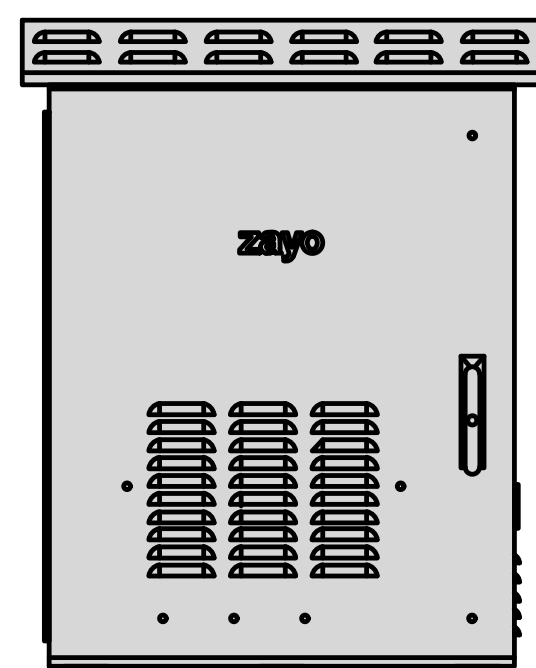
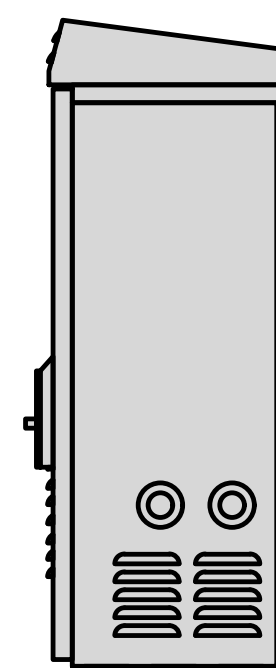
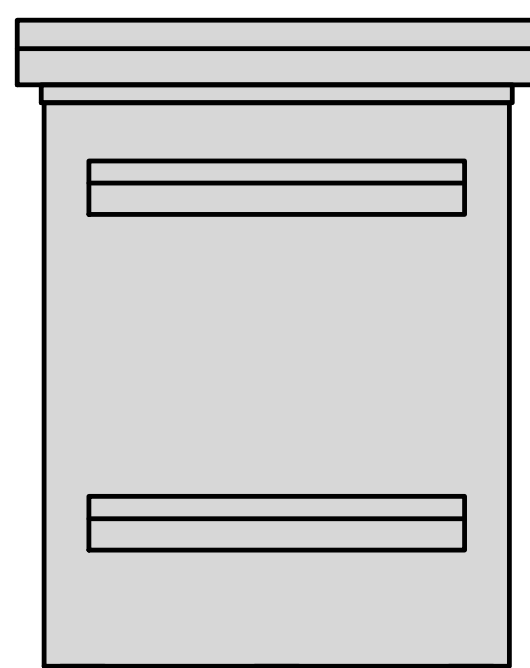
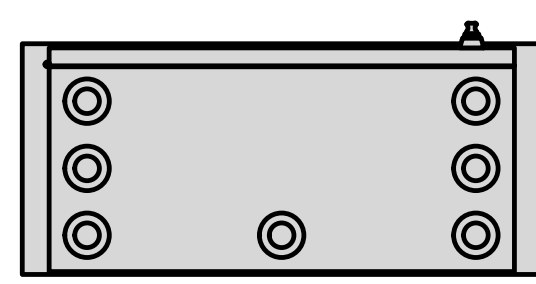


SAFETY SWITCH DETAIL

NO SCALE

3

ZAYO 5RU (LEFT SWING DOOR) FIBER NID ENCLOSURE	
DIMENSIONS (HxWxD)	36.1"x29"x12.9"
WEIGHT	85 lbs

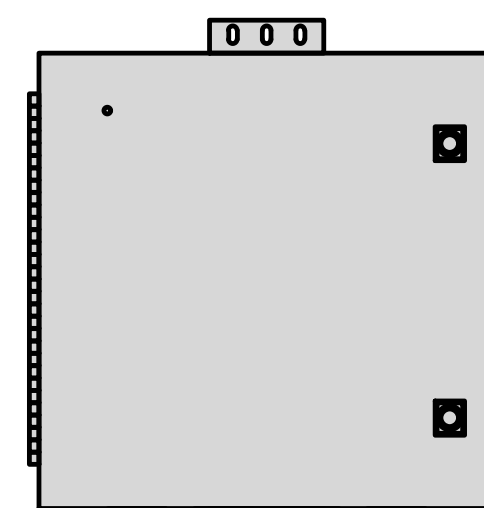
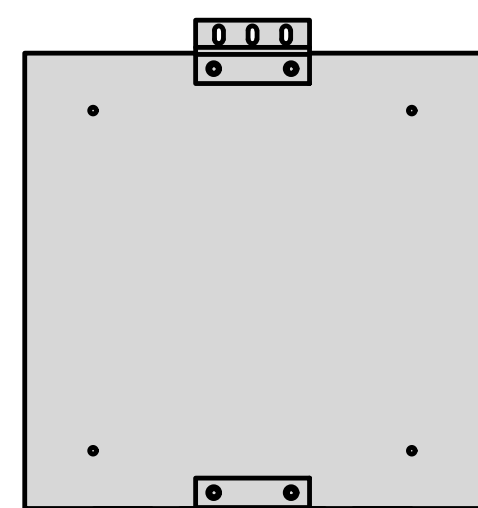
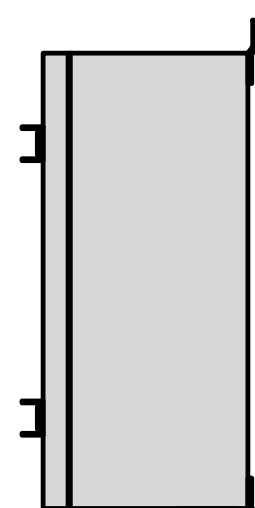
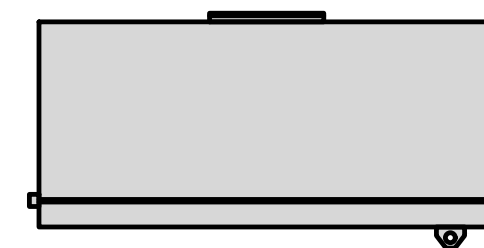


FIBER NID ENCLOSURE DETAIL

NO SCALE

4

CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE	
ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4

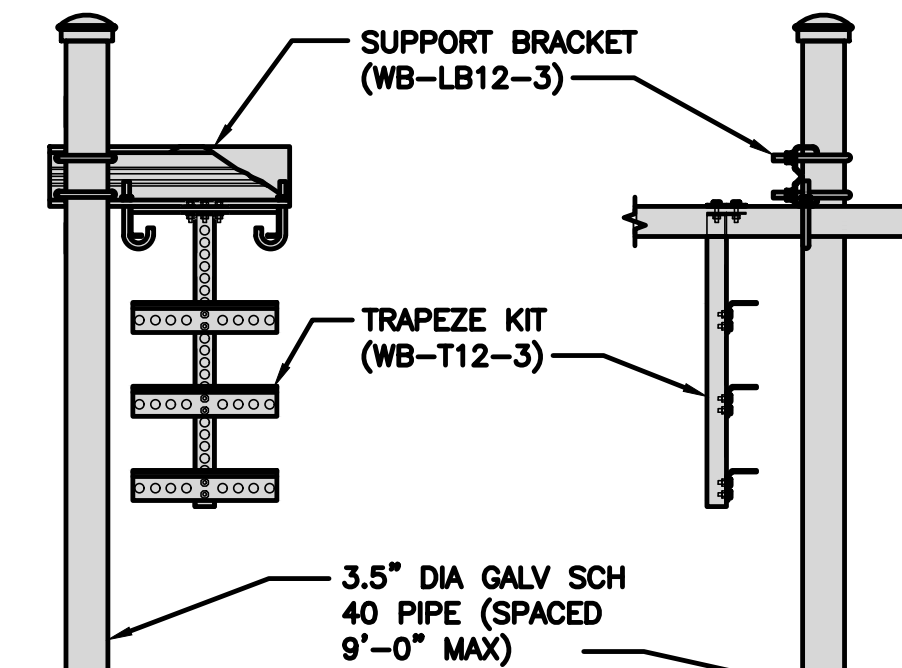
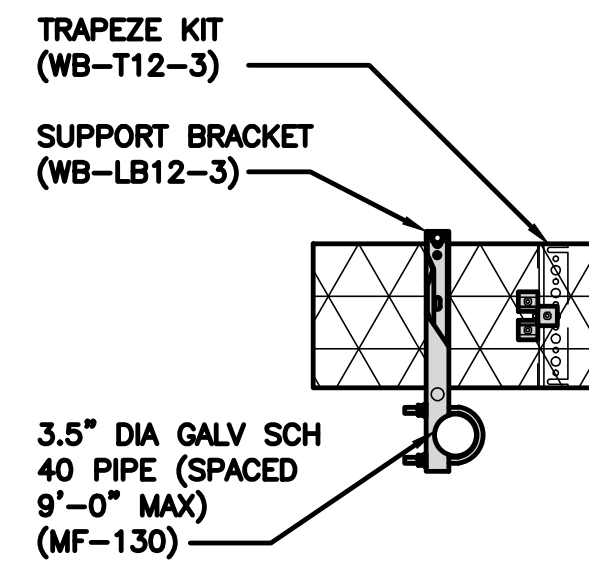


FIBER TELCO ENCLOSURE DETAIL

NO SCALE

5

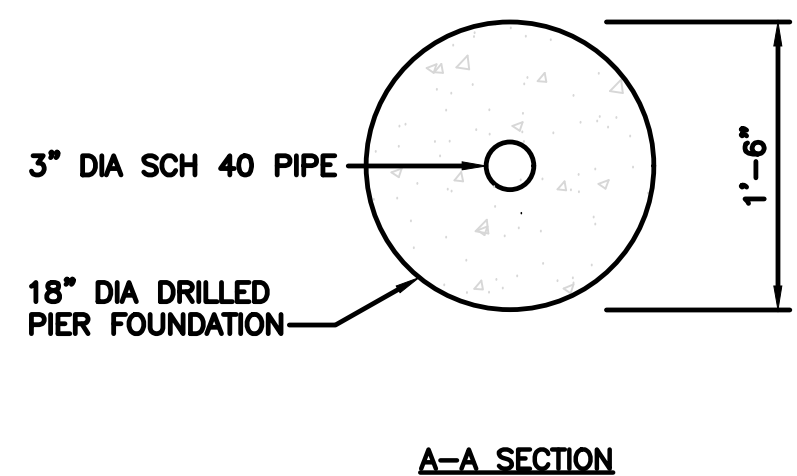
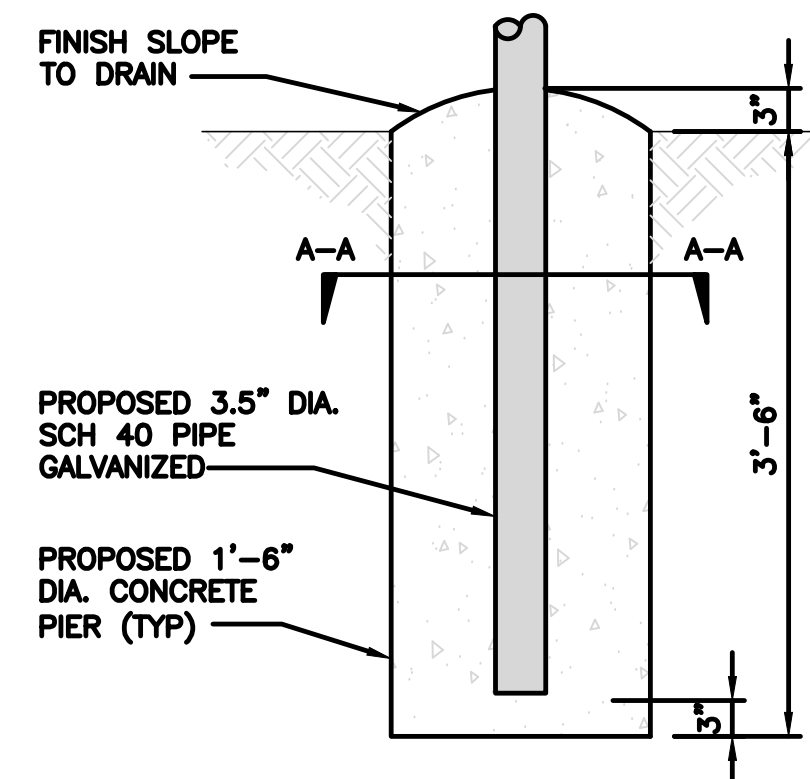
COMMSCOPE WB-K110-B WAVEGUIDE BRIDGE KIT		INCLUDED PRODUCTS: WB-T12-3 TRAPEZE KIT, 3 RUNGS WB-LB12-3 SUPPORT BRACKET MF-130 DIRECT BURIAL PIPE COLUMN, 13'-4"
DIMENSIONS (HxL)	160"x10'	
WEIGHT/ VOLUME	325.0 LBS	
CABLE RUN (QTY)	12	



ICE BRIDGE DETAIL

NO SCALE

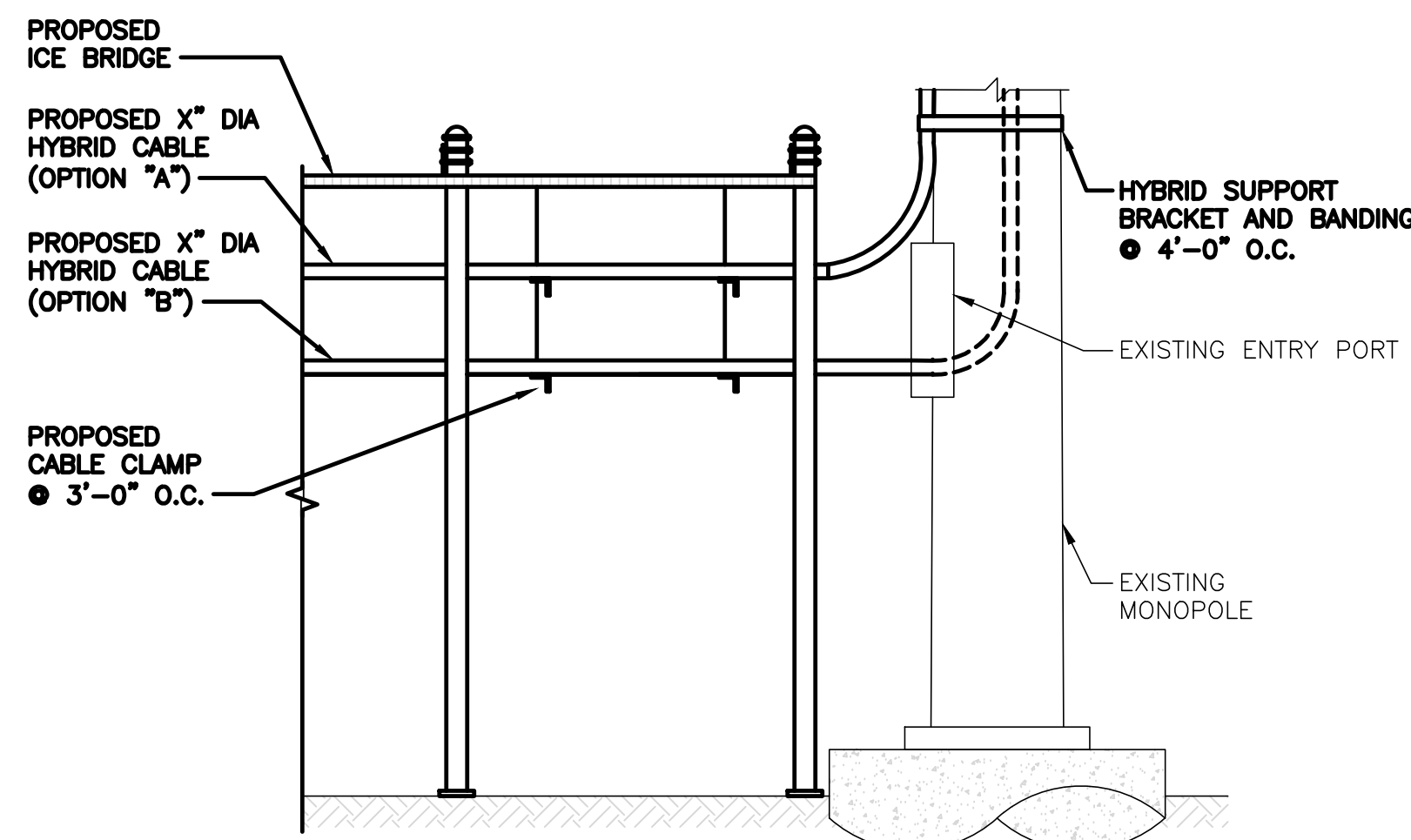
6



TYPICAL ICE BRIDGE CONCRETE PIER DETAIL

NO SCALE

7



HYBRID CABLE RUN

NO SCALE

8

NOT USED

NO SCALE

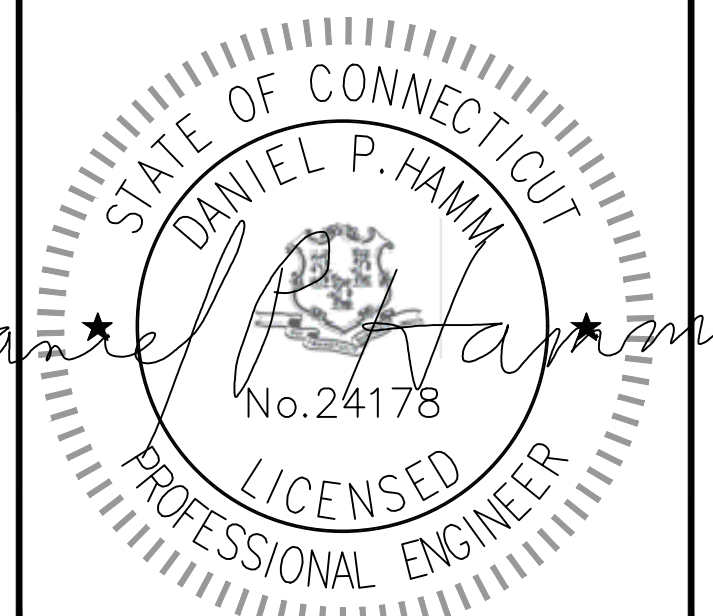
9

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

HG
HUDSON
Design Group LLC

45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

KSBM SMA DPH

RFDS REV #: 2

PRELIMINARY
DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

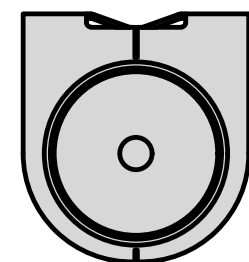
A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

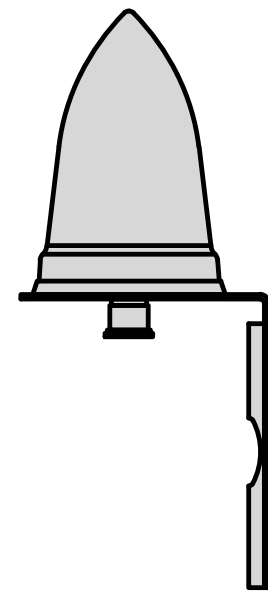
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-4

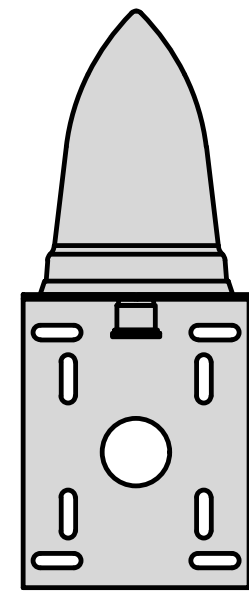
PCTEL GPSGL-TMG-SPI-40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1590 ± 30MHz



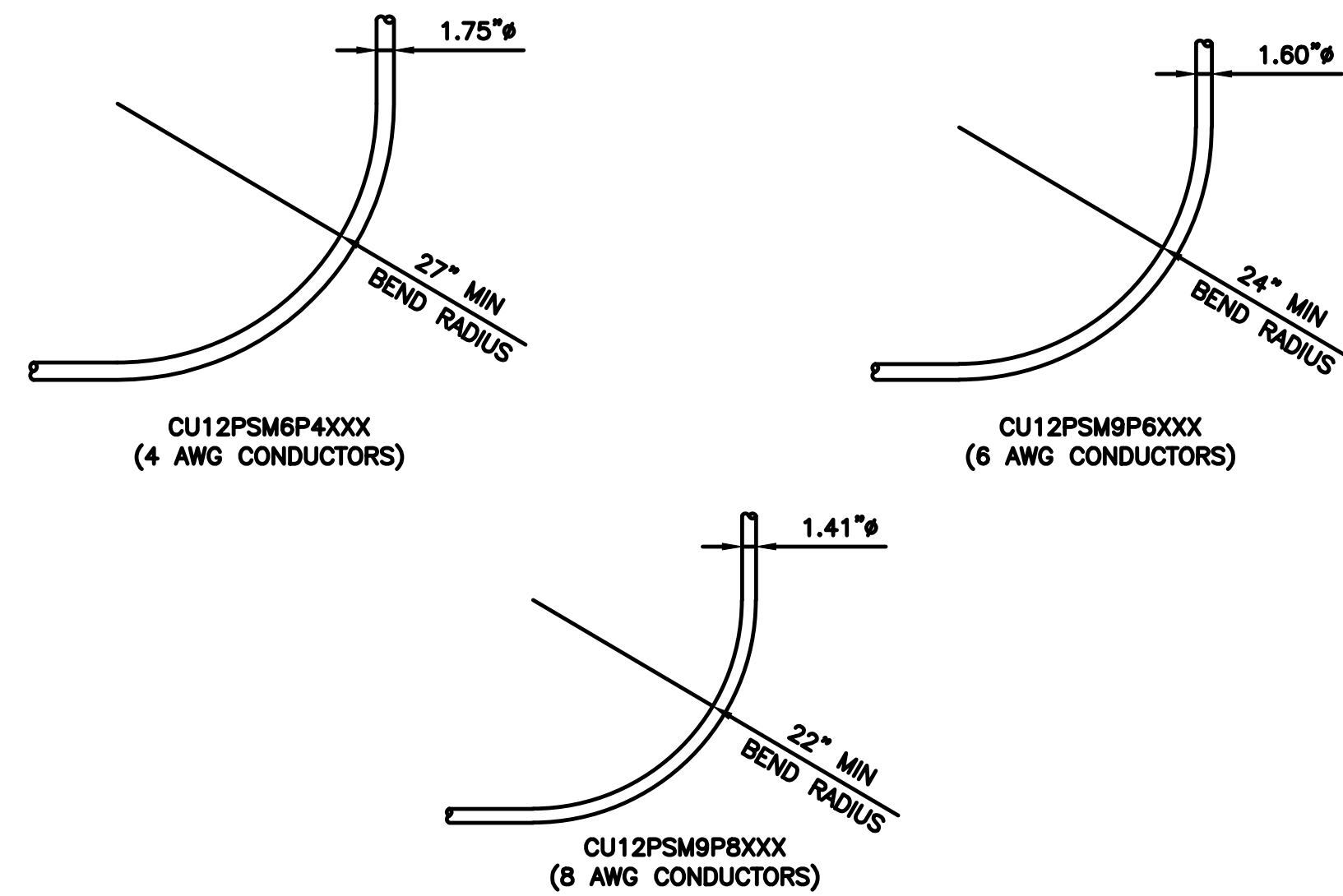
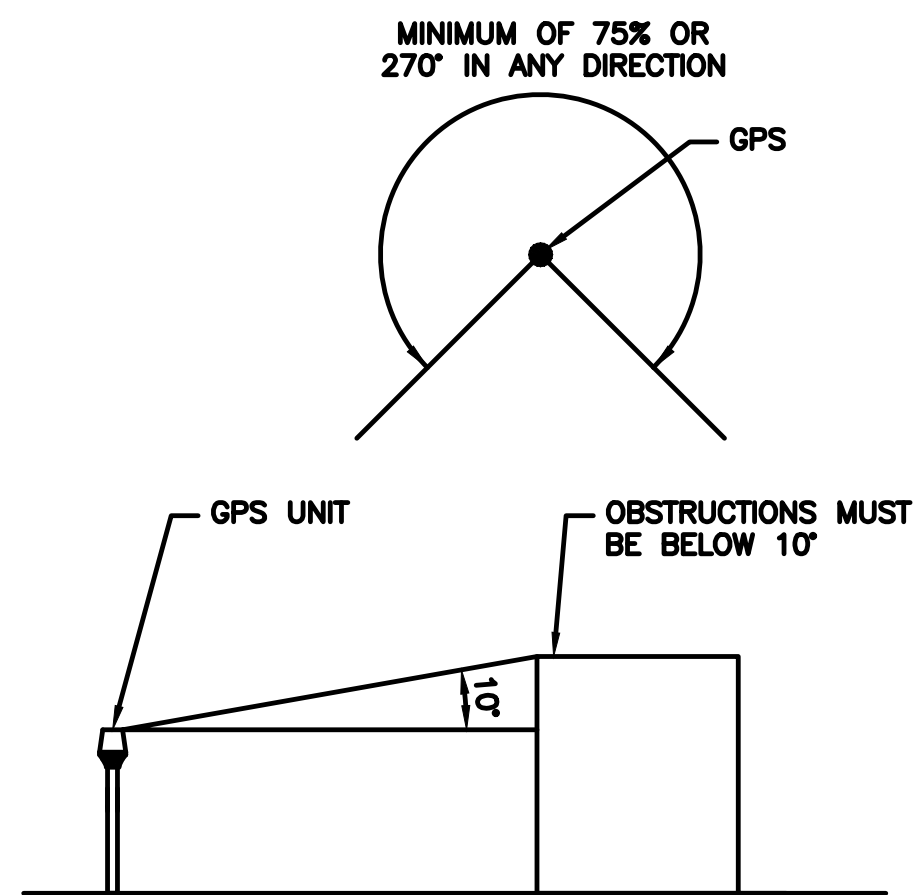
TOP



BACK



SIDE



dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

HG
HUDSON
Design Group LLC

45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586

GPS DETAIL

NO SCALE

1

GPS MINIMUM SKY VIEW REQUIREMENTS

NO SCALE

2

CABLES UNLIMITED HYBRID CABLE
MINIMUM BEND RADIUSES

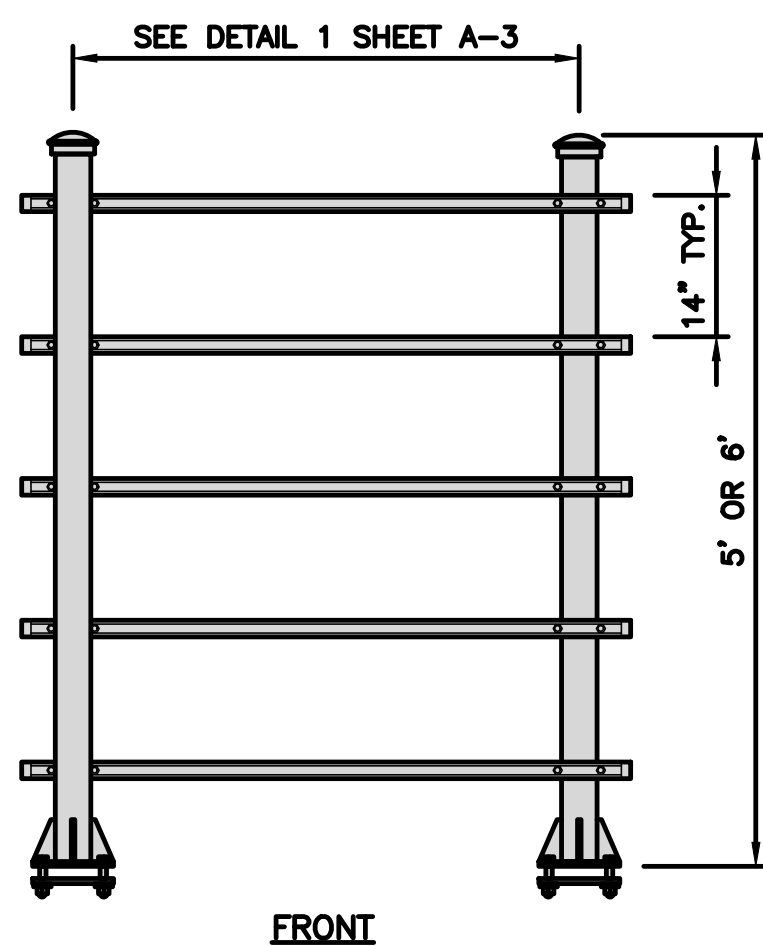
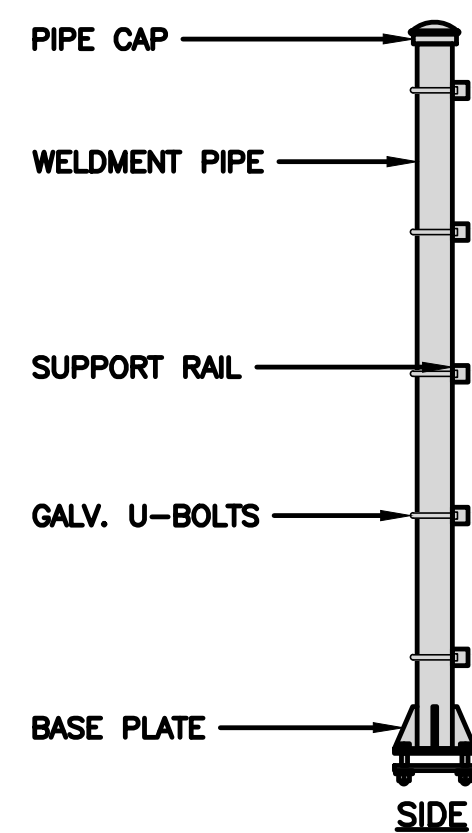
NO SCALE

3

**COMMSCOPE MTC4045HFLD
H-FRAME**

UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	±59.74 lbs

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



H-FRAME DETAIL

NO SCALE

4

NOT USED

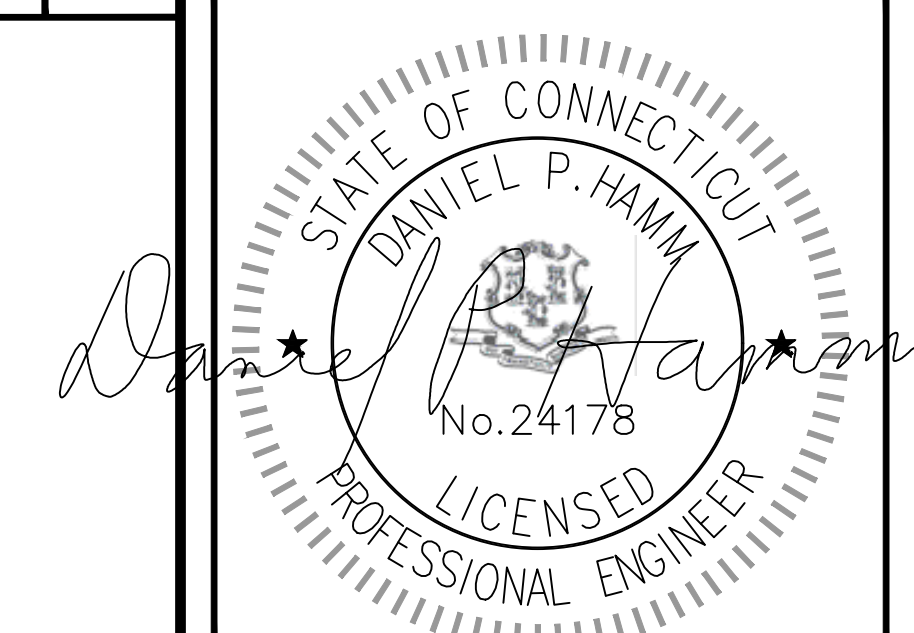
NO SCALE

5

NOT USED

NO SCALE

6



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY:	CHECKED BY:	APPROVED BY:
KSBM	SMA	DPH

RFDS REV #: 2

**PRELIMINARY
DOCUMENTS**

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-5

NOT USED

NO SCALE

7

NOT USED

NO SCALE

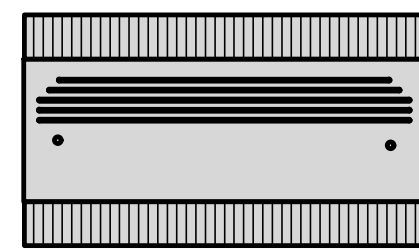
8

NOT USED

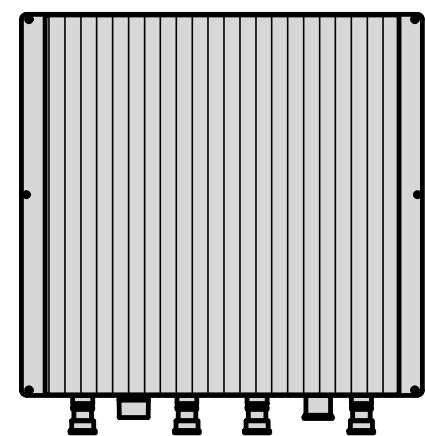
NO SCALE

9

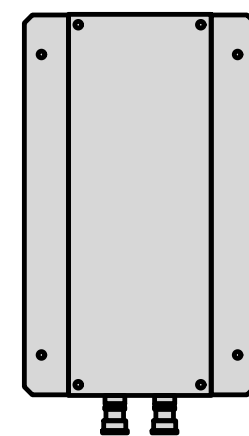
FUJITSU TRIPLE BAND TA08025-B605	
DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



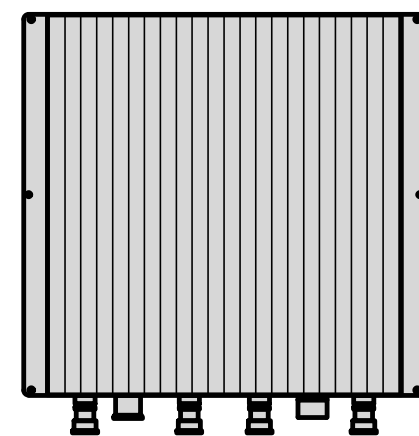
PLAN



BACK

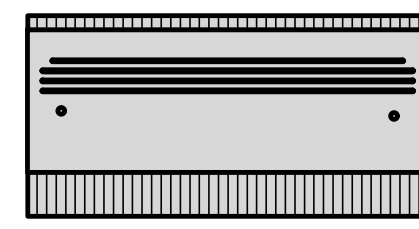


SIDE

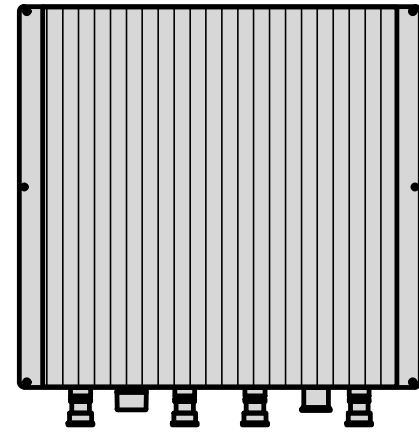


FRONT

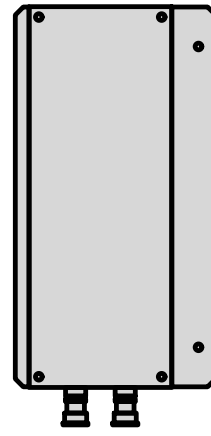
FUJITSU DUAL BAND TA08025-B604	
DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



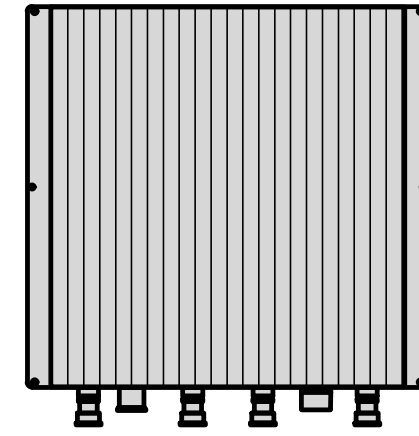
PLAN



BACK



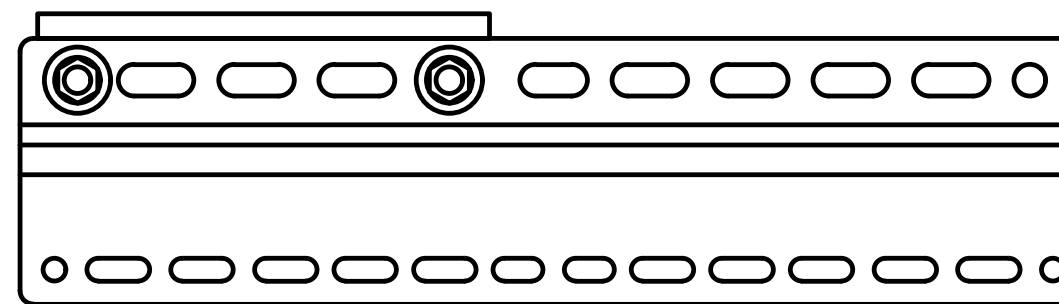
SIDE



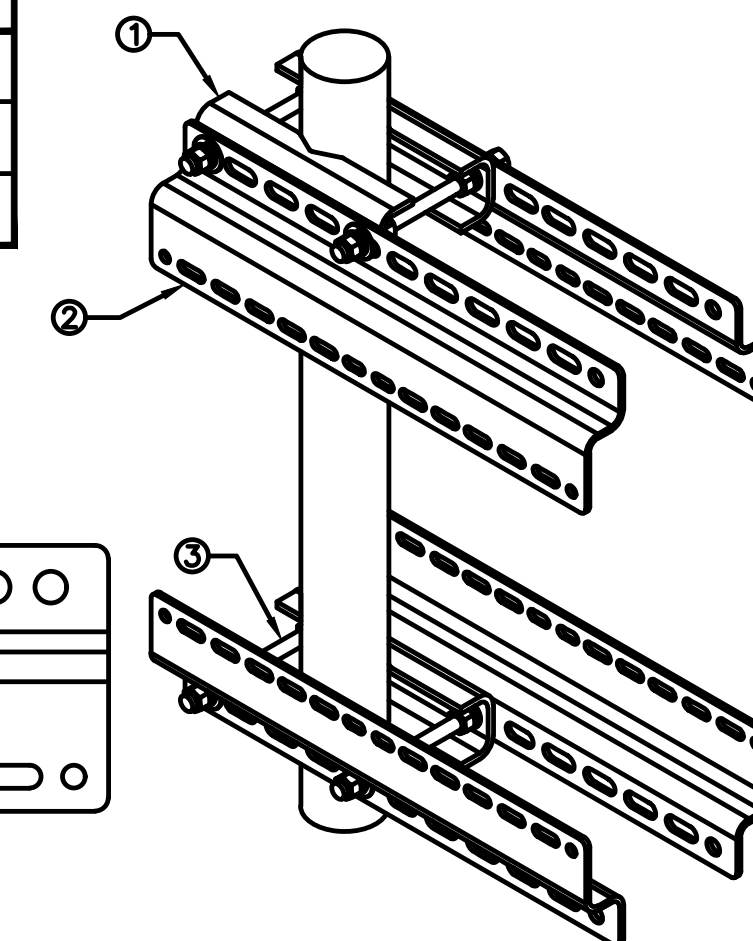
FRONT

SABRE DOUBLE Z-BRACKET C10123155	
DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRH Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"



NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



RRH DETAIL

NO SCALE

1

RRH DETAIL

NO SCALE

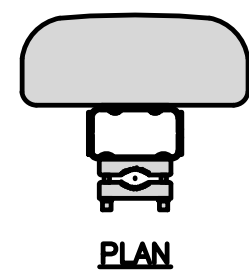
2

RRH MOUNT DETAIL

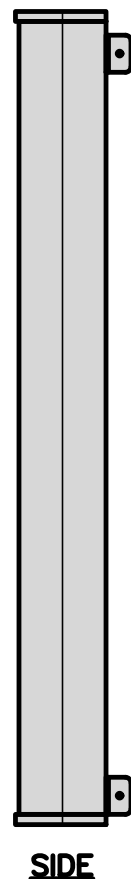
NO SCALE

3

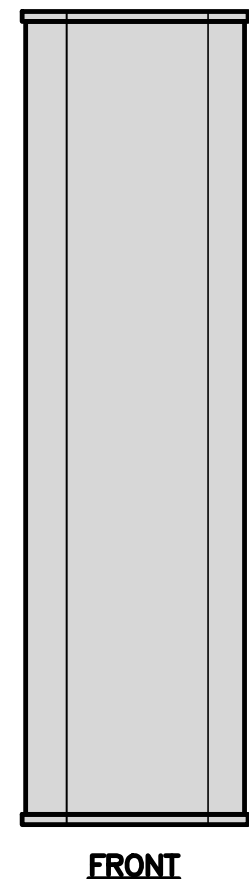
JMA MX08FRO665-21	
DIMENSIONS (HxWxD)	72"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	64.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs



PLAN



SIDE

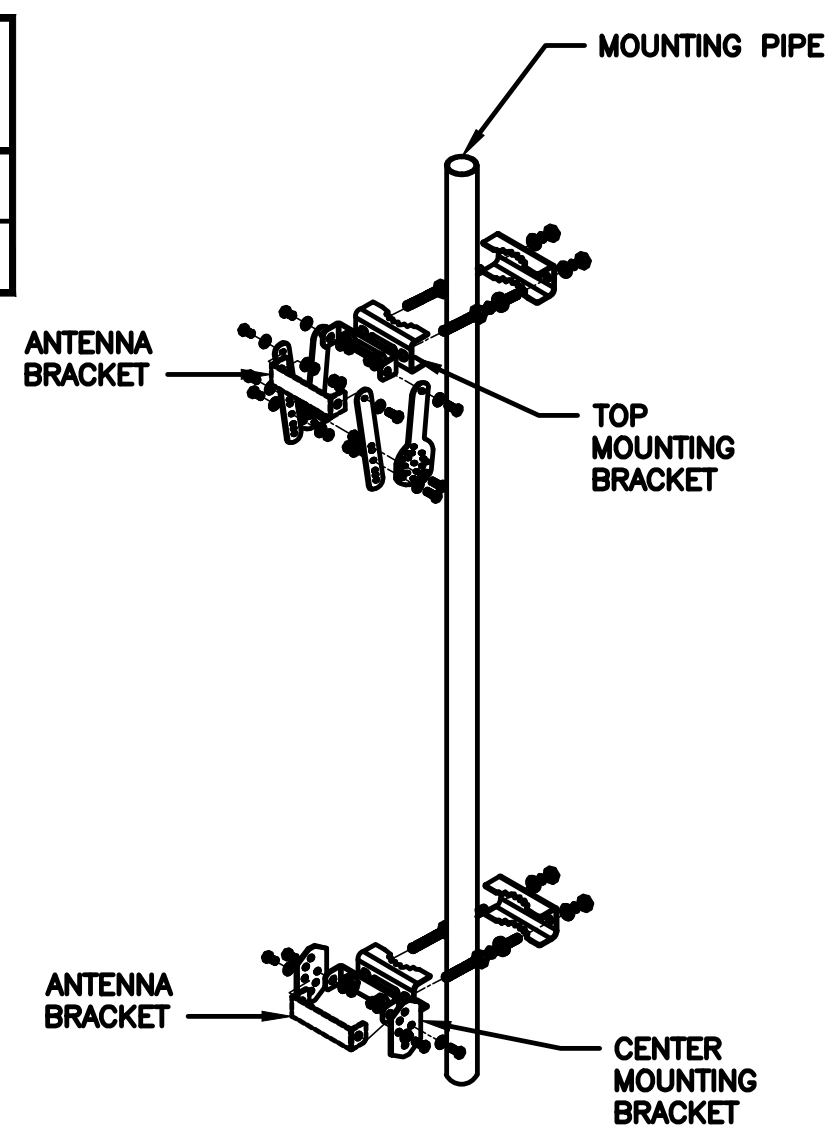


FRONT

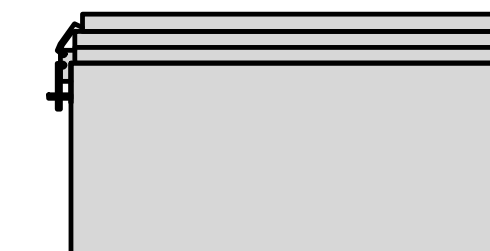
JMA ANTENNA MOUNT BRACKET #91900318	
TOTAL WEIGHT (WITH BRACKETS)	18 lbs (8.18 Kg)
POLE DIAMETER RANGE	2.5" TO 4.5"

NOTE:
KIT #91900318: TOP AND BOTTOM BRACKETS
FOR 4-, 6-, AND 8-FOOT ANTENNAS
ANTENNA BRACKET NOT PART OF KIT

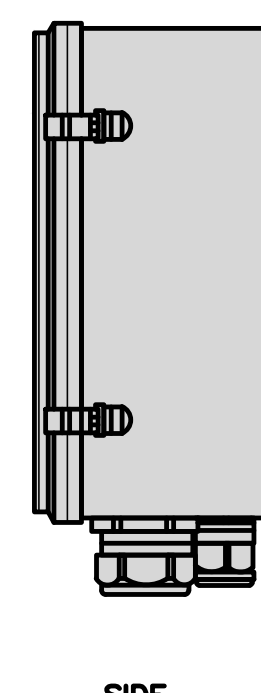
NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



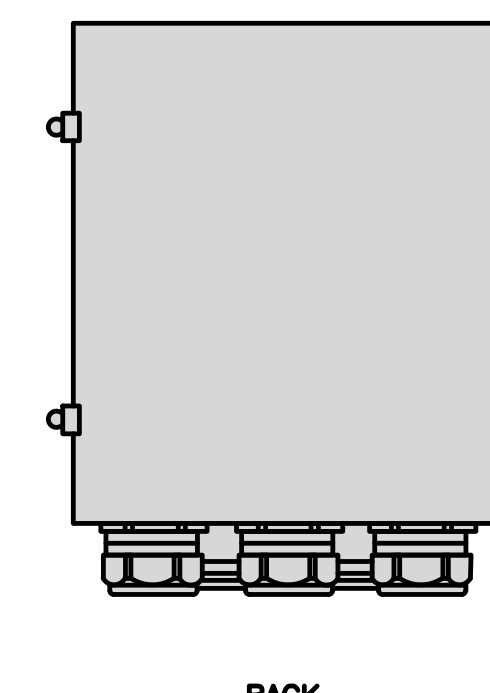
RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION (OVP)	
DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS



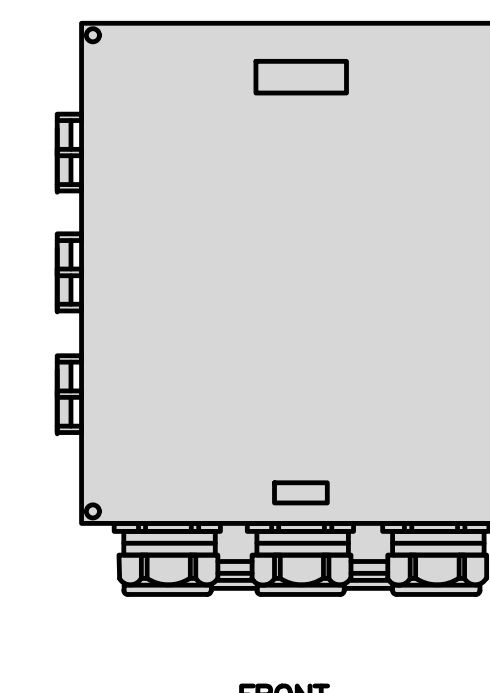
PLAN



SIDE



BACK



FRONT

ANTENNA DETAIL

NO SCALE

4

ANTENNA BRACKET DETAIL

NO SCALE

5

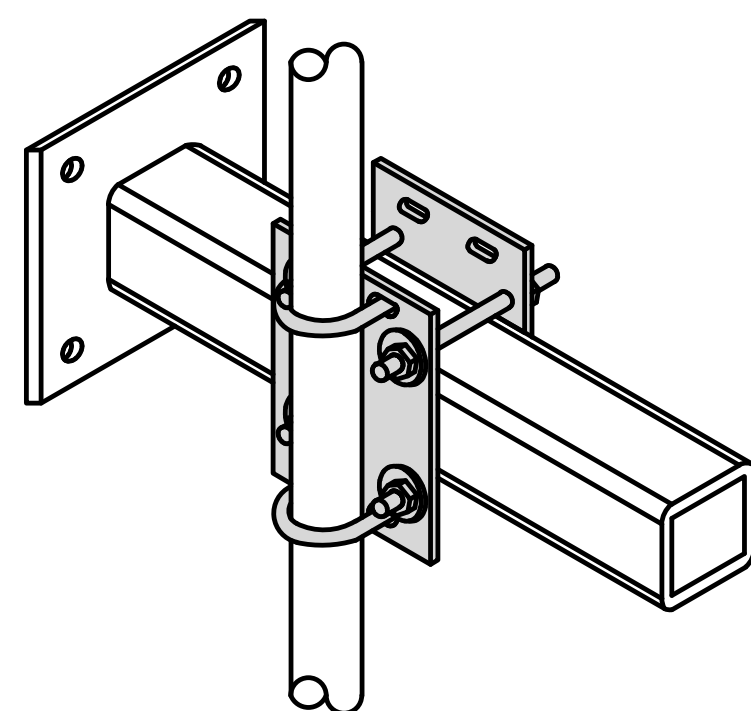
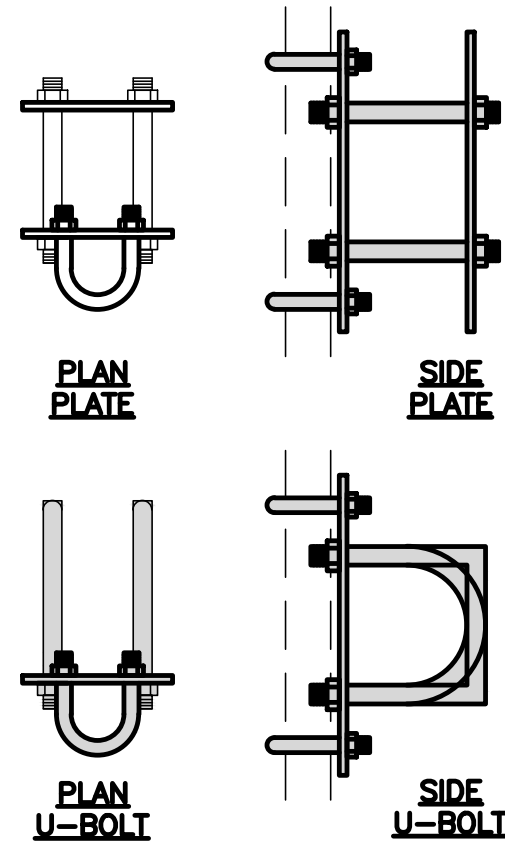
SURGE SUPPRESSION DETAIL (OVP)

NO SCALE

6

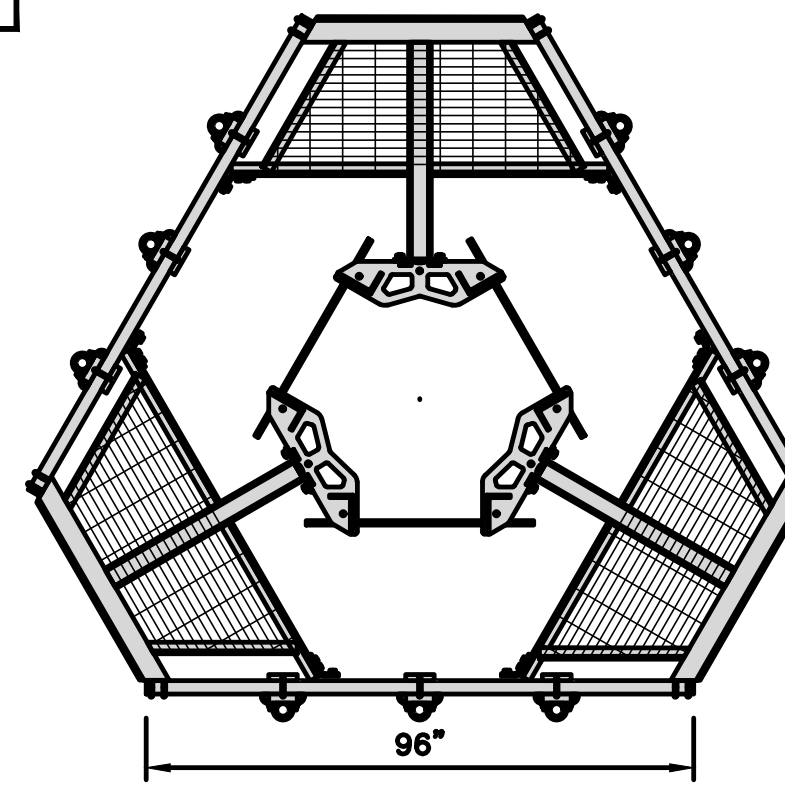
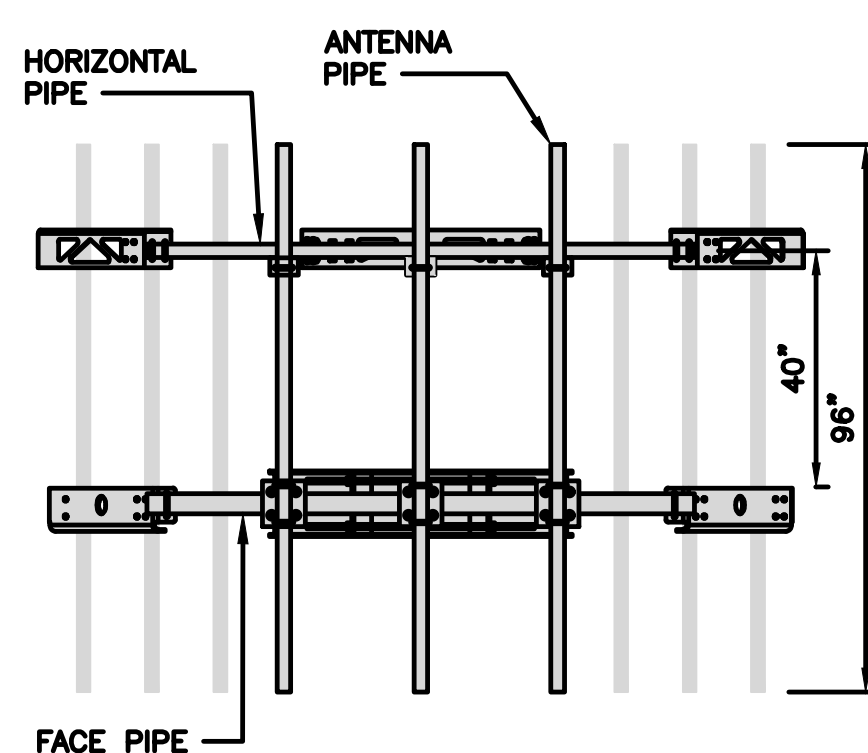
COMMSCOPE XP-2040 CROSSOVER PLATE	
DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



COMMSCOPE MC-PK8-DSH	
FACE WIDTH	96"
WEIGHT	1373.08 lbs
NOTE: 15" TO 38" O.D.	

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



RRH/OVP MOUNT DETAIL

NO SCALE

7

ANTENNA PLATFORM DETAIL

NO SCALE

8

NOT USED

NO SCALE

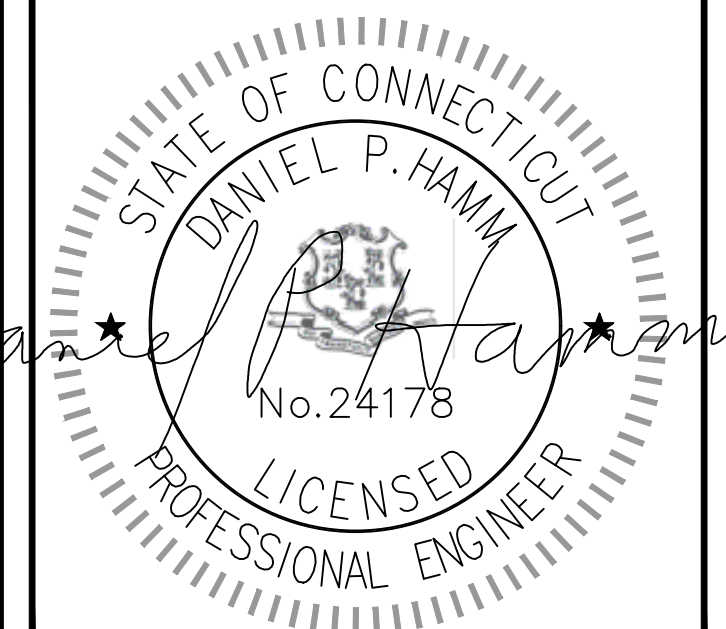
9

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

HG
HUDSON
Design Group LLC

45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:
KSBM SMA DPH

RFDS REV #: 2

PRELIMINARY
DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

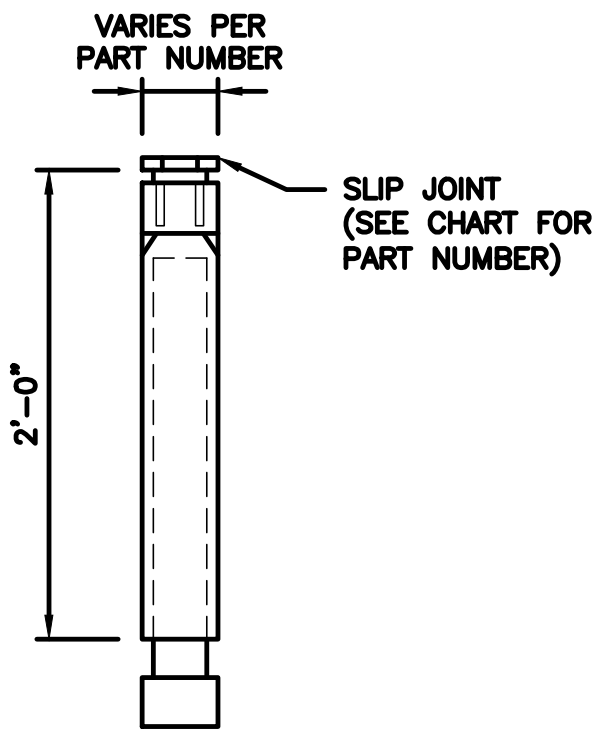
A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-6

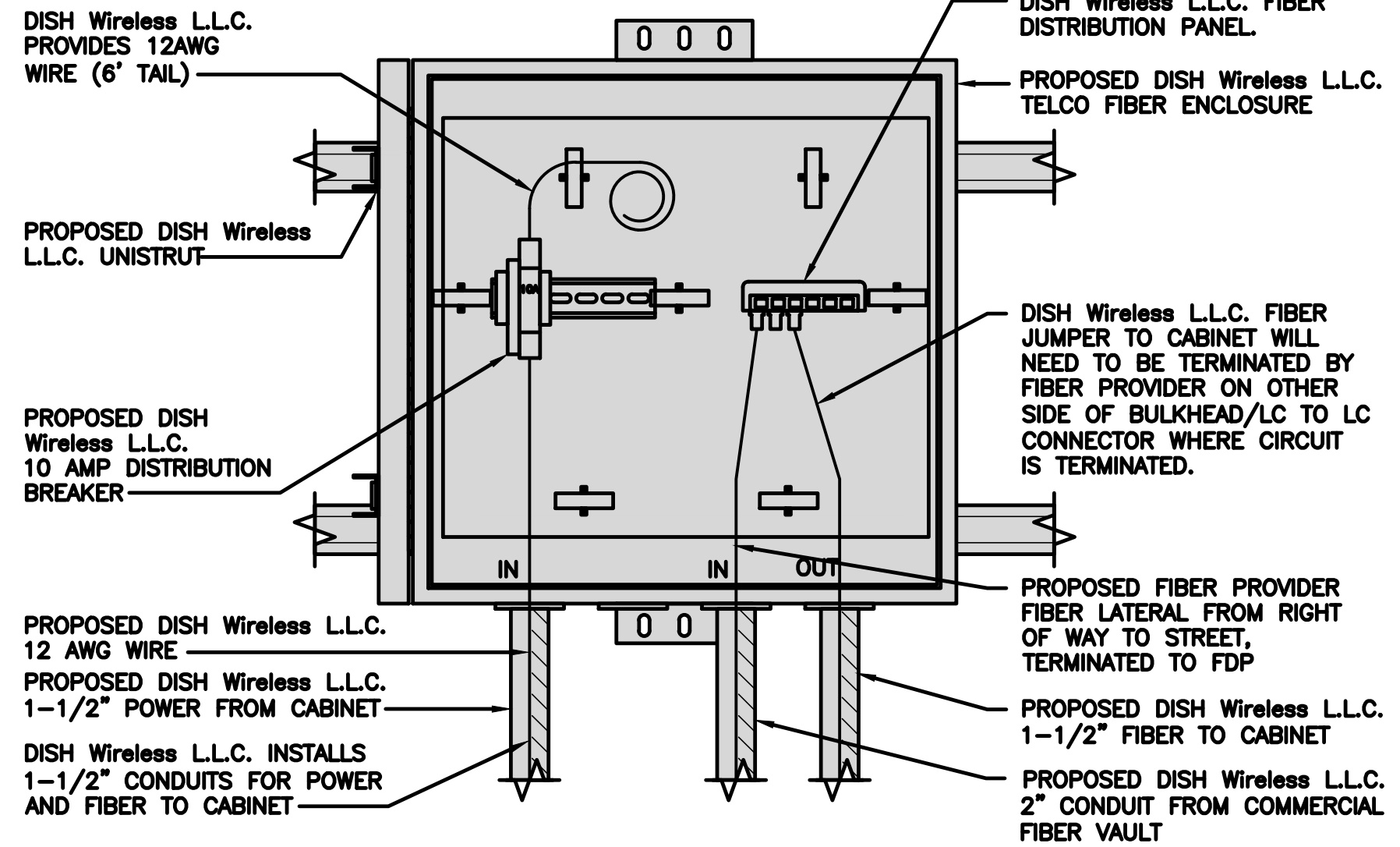
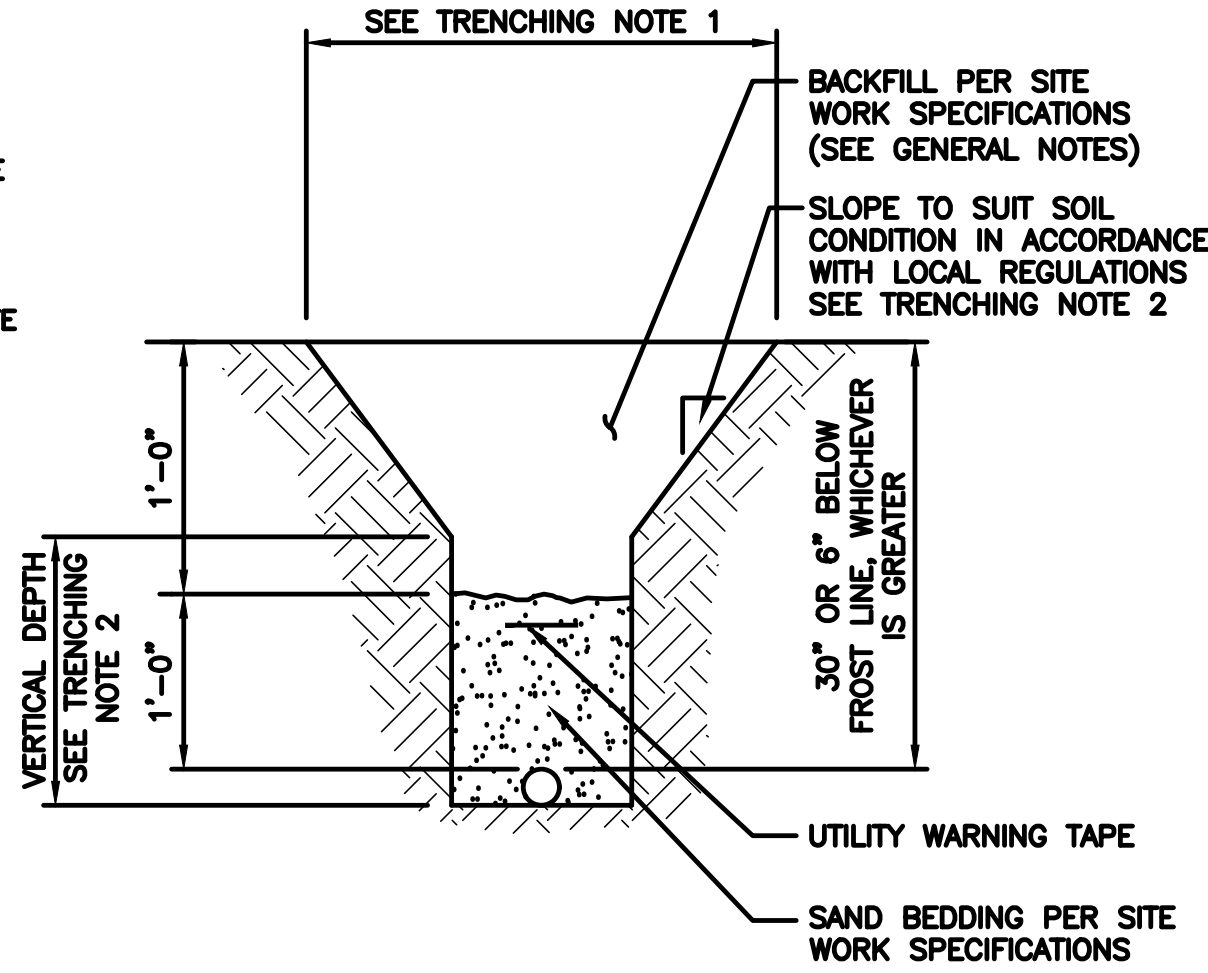
CARLON EXPANSION FITTINGS				
COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
E945M	E945MX	3 1/2"	5	8"
E945N	E945NX	4"	5	8"
E945P	E945PX	5"	1	8"
E945R	E945RX	6"	1	8"



NOTE: CONTRACTOR TO INSTALL EXPANSION FITTING SLIP JOINT AT METER CENTER CONDUIT TERMINATION, AS PER LOCAL UTILITY POLICY, ORDINANCE AND/OR SPECIFIED REQUIREMENT.

TRENCHING NOTES

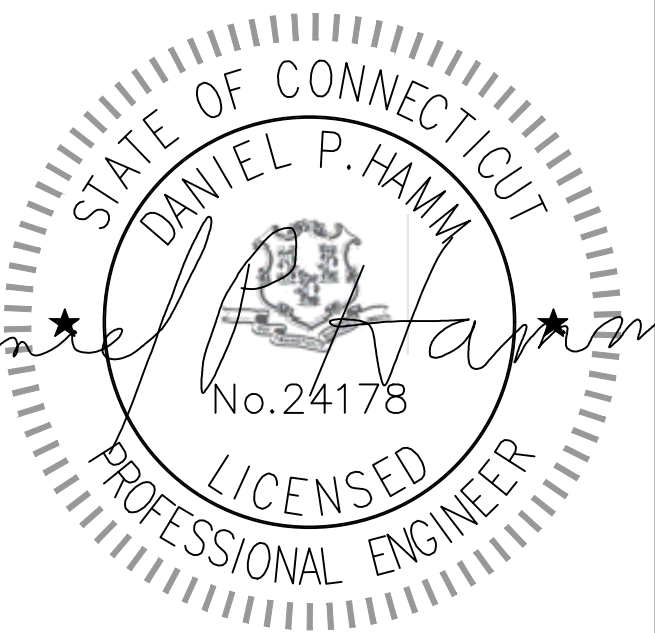
- CONTRACTOR SHALL RESTORE THE TRENCH TO ITS ORIGINAL CONDITIONS BY EITHER SEEDING OR SODDING GRASS AREAS, OR REPLACING ASPHALT OR CONCRETE AREAS TO ITS ORIGINAL CROSS SECTION.
- TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.
- ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION, WHICHEVER IS THE MOST STRINGENT.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: KSBM CHECKED BY: SMA APPROVED BY: DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C. PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

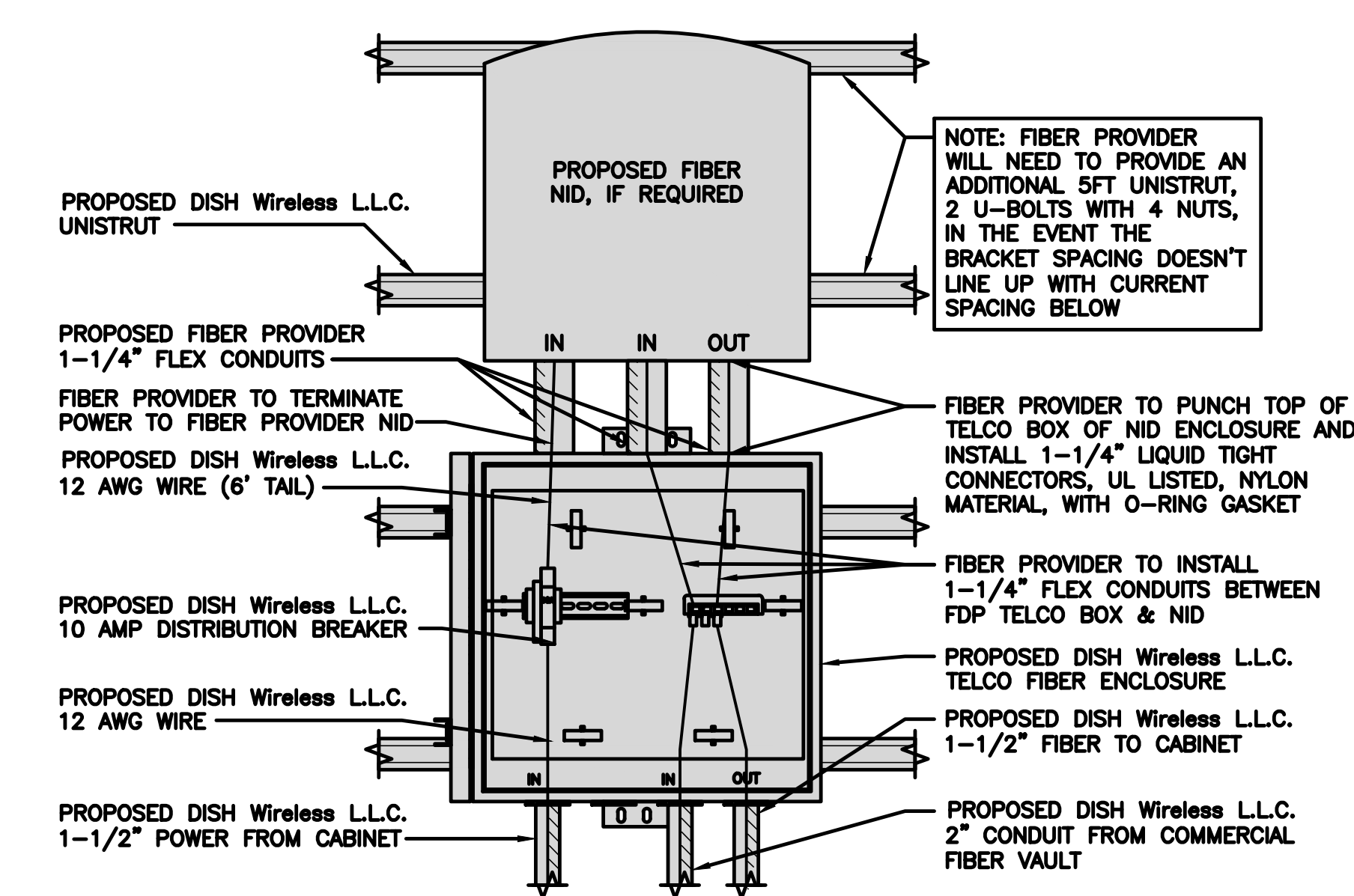
SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-2

EXPANSION JOINT DETAIL NO SCALE 1

TYPICAL UNDERGROUND TRENCH DETAIL NO SCALE 2

DARK TELCO BOX – INTERIOR WIRING LAYOUT NO SCALE 3



LIT TELCO BOX – INTERIOR WIRING LAYOUT (OPTIONAL) NO SCALE 4

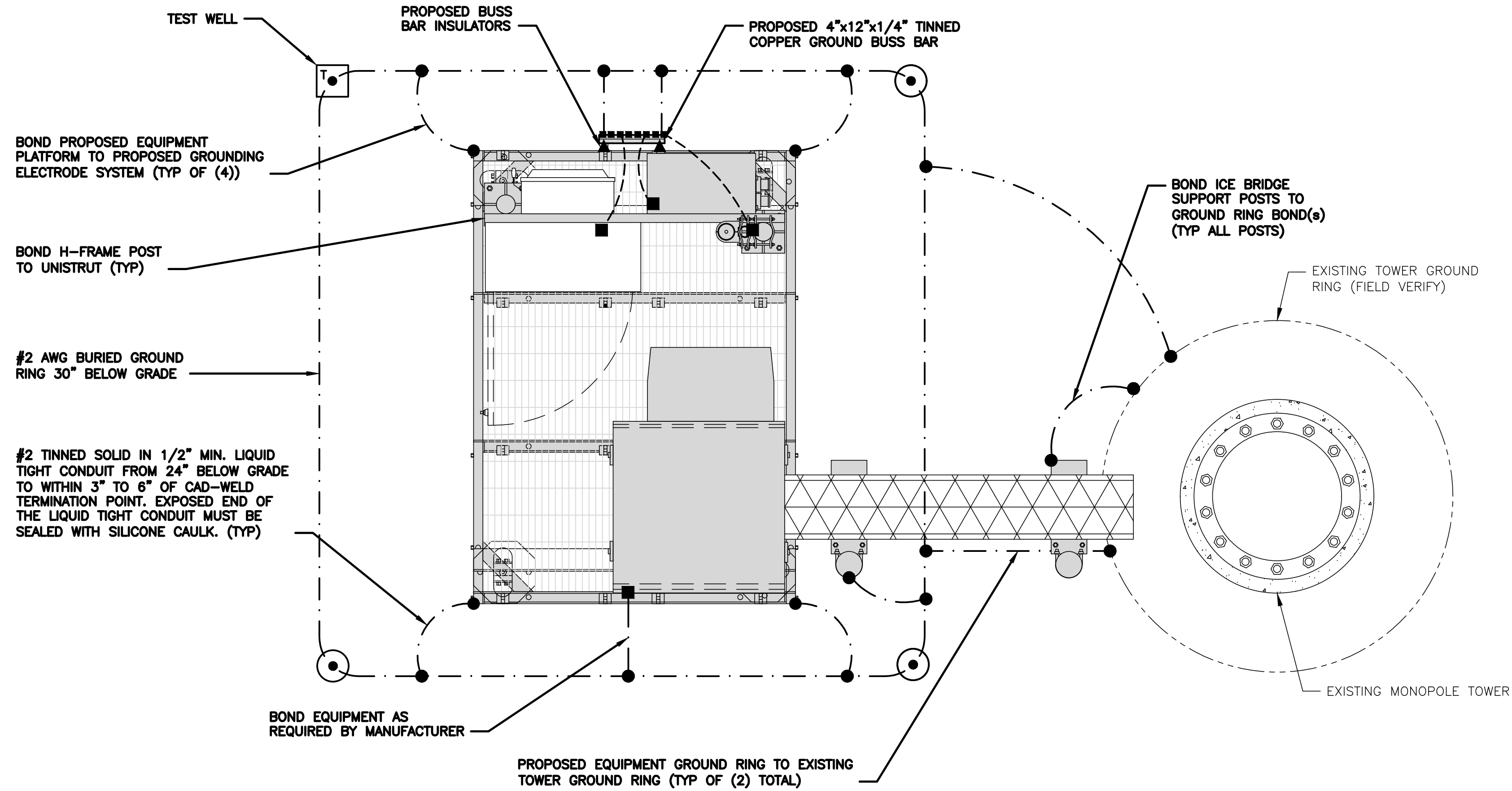
NOT USED NO SCALE 5

NOT USED NO SCALE 6

NOT USED NO SCALE 7

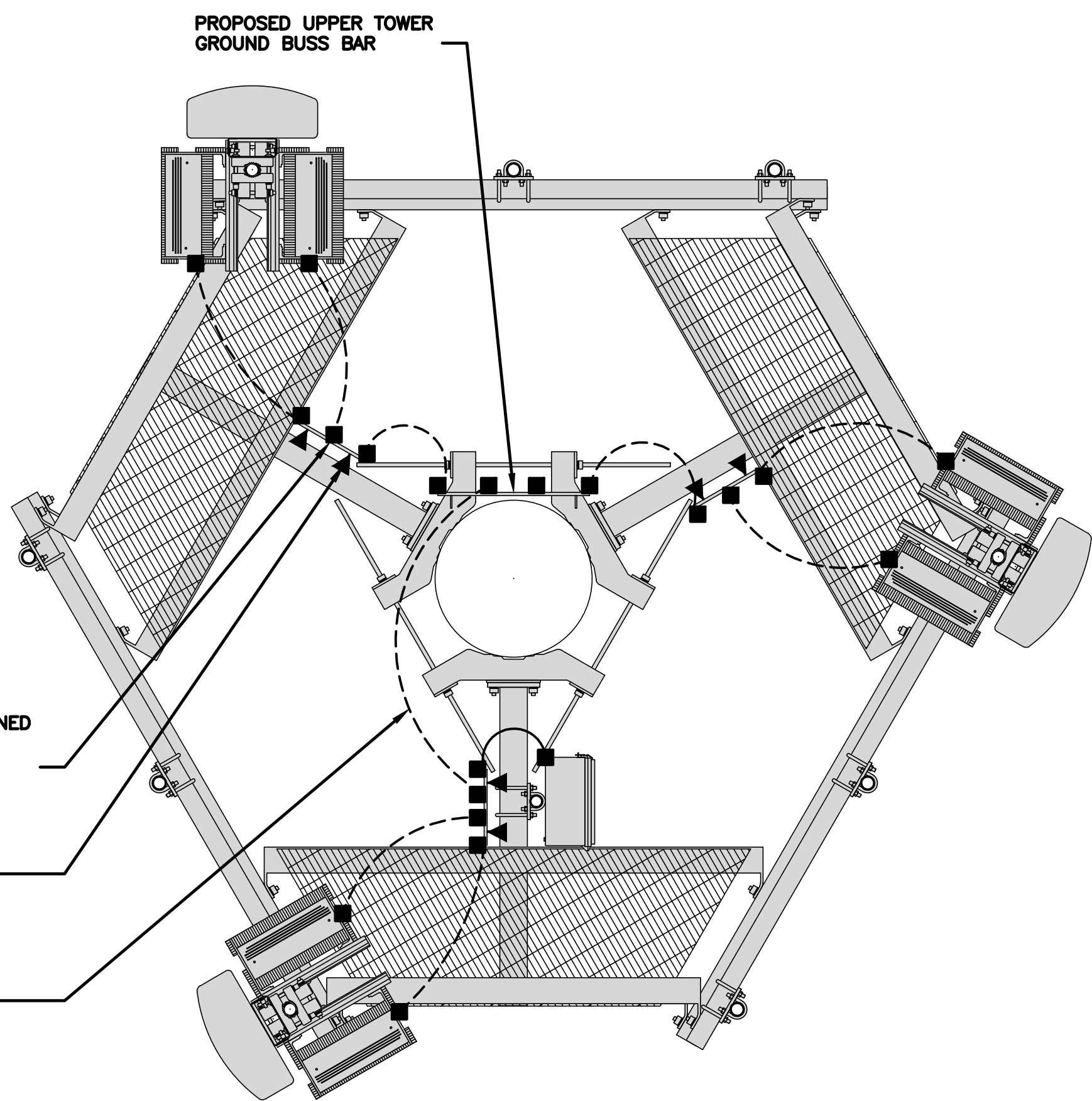
NOT USED NO SCALE 8

NOT USED NO SCALE 9



TYPICAL EQUIPMENT GROUNDING PLAN

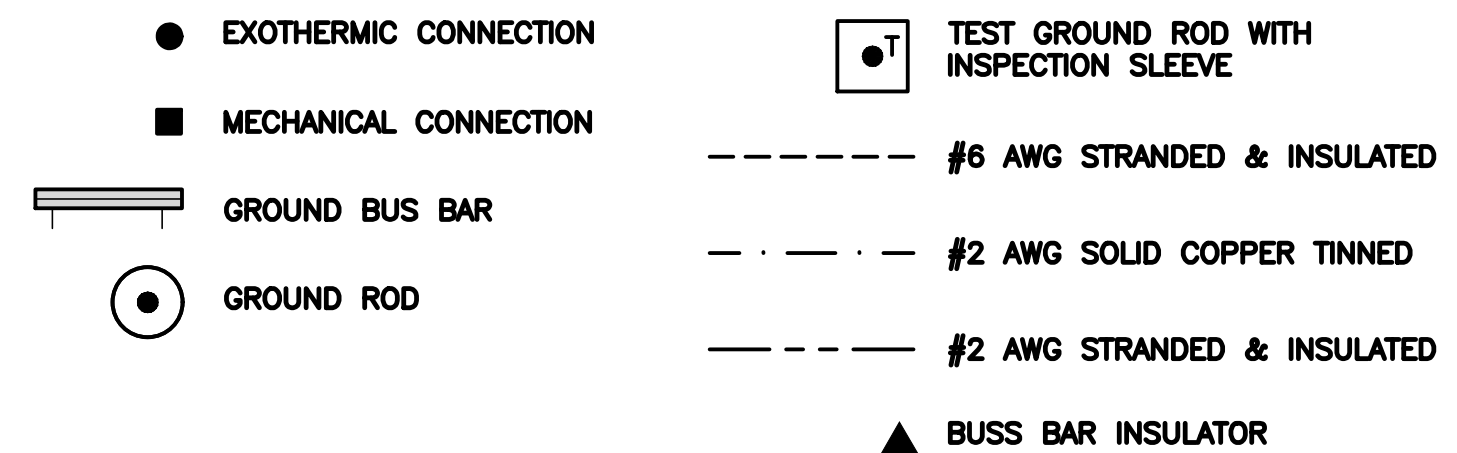
NO SCALE 1



NOTES

ANTENNAS AND OVP SHOWN ARE GENERIC AND NOT REFERENCING TO A SPECIFIC MANUFACTURER. THIS LAYOUT IS FOR REFERENCE PURPOSES ONLY

NO SCALE 2



GROUNDING LEGEND

- GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
- CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
- ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

GROUNDING KEY NOTES

- (A) **EXTERIOR GROUND RING:** #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.
- (B) **TOWER GROUND RING:** THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.
- (C) **INTERIOR GROUND RING:** #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.
- (D) **BOND TO INTERIOR GROUND RING:** #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.
- (E) **GROUND ROD:** UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.
- (F) **CELL REFERENCE GROUND BAR:** POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE. STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.
- (G) **HATCH PLATE GROUND BAR:** BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.
- (H) **EXTERIOR CABLE ENTRY PORT GROUND BARS:** LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE.
- (I) **TELCO GROUND BAR:** BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
- (J) **FRAME BONDING:** THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.
- (K) **INTERIOR UNIT BONDS:** METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
- (L) **FENCE AND GATE GROUNDING:** METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.
- (M) **EXTERIOR UNIT BONDS:** METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. USING #2 TINNED SOLID COPPER WIRE
- (N) **ICE BRIDGE SUPPORTS:** EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.
- (O) **DURING ALL DC POWER SYSTEM CHANGES** INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR
- (P) **TOWER TOP COLLECTOR BUSS BAR** IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR. REFER TO DISH Wireless L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES

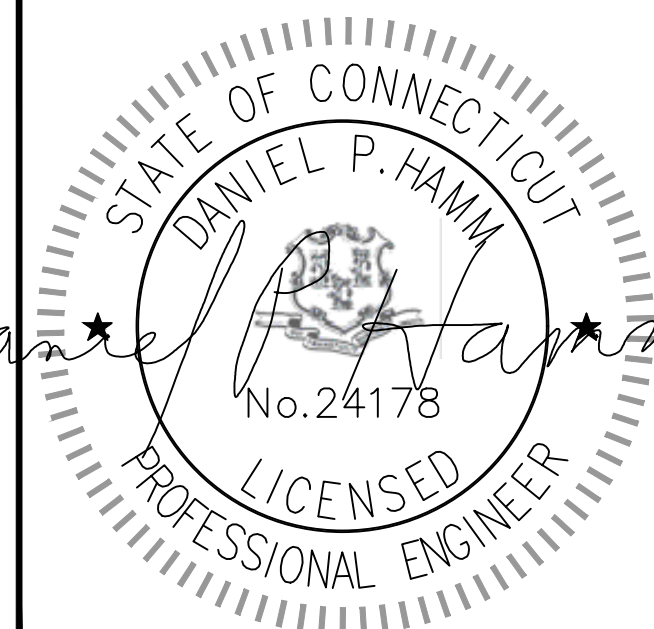
NO SCALE 3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: KSBM CHECKED BY: SMA APPROVED BY: DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

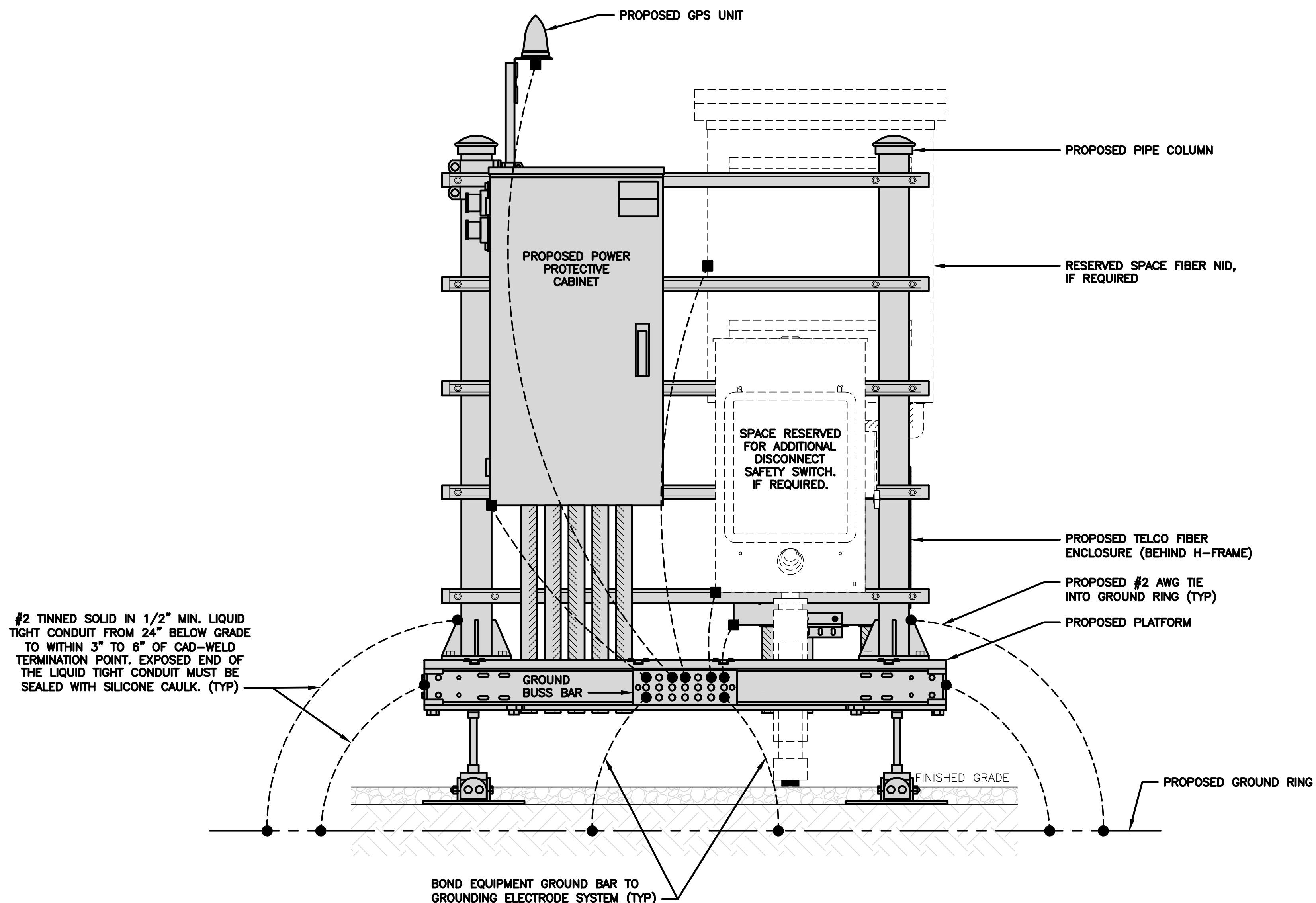
DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
GROUNDING PLANS
AND NOTES

SHEET NUMBER

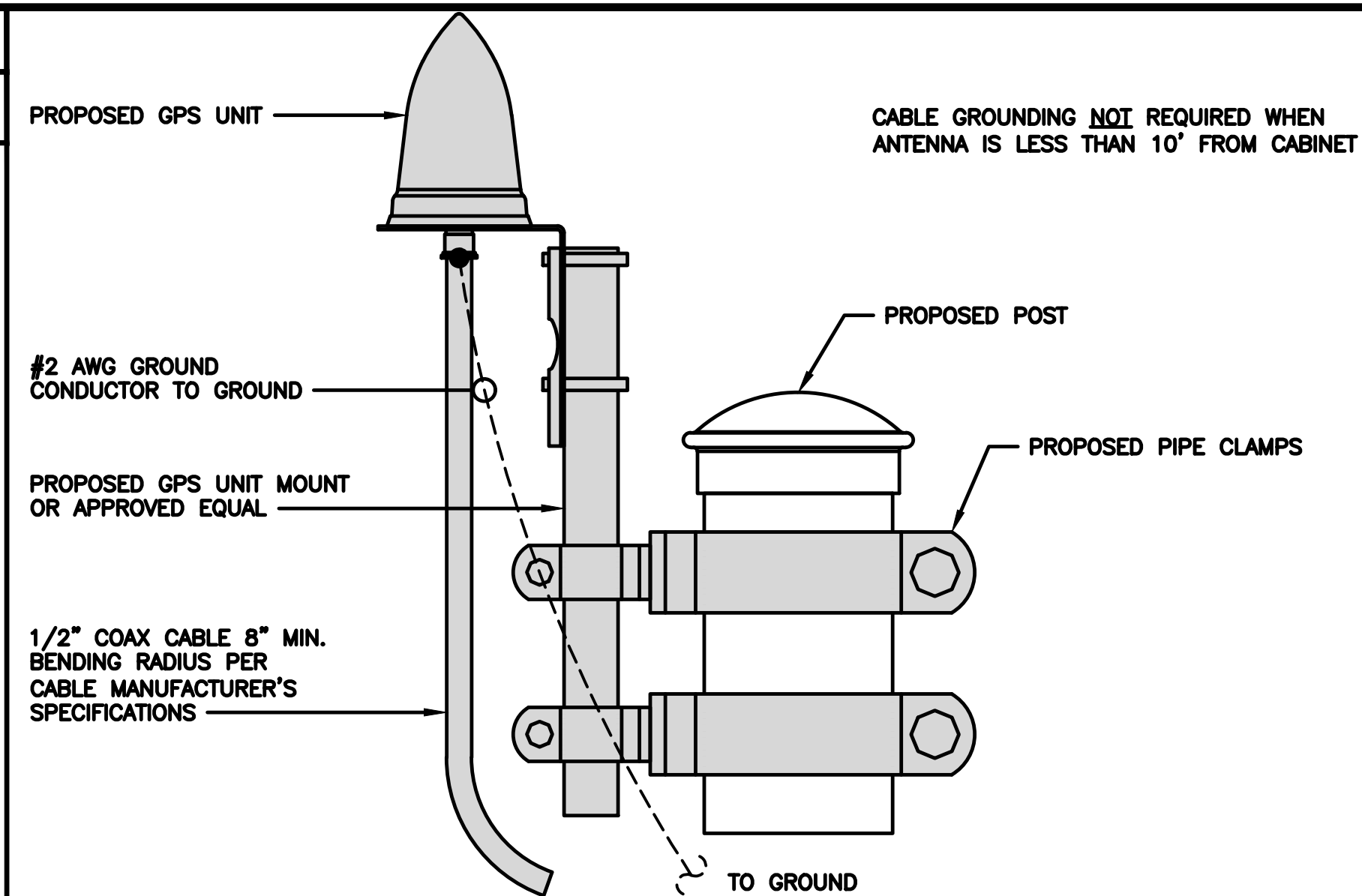
G-1

NOTES
EQUIPMENT CABINET OMITTED FOR CLARITY



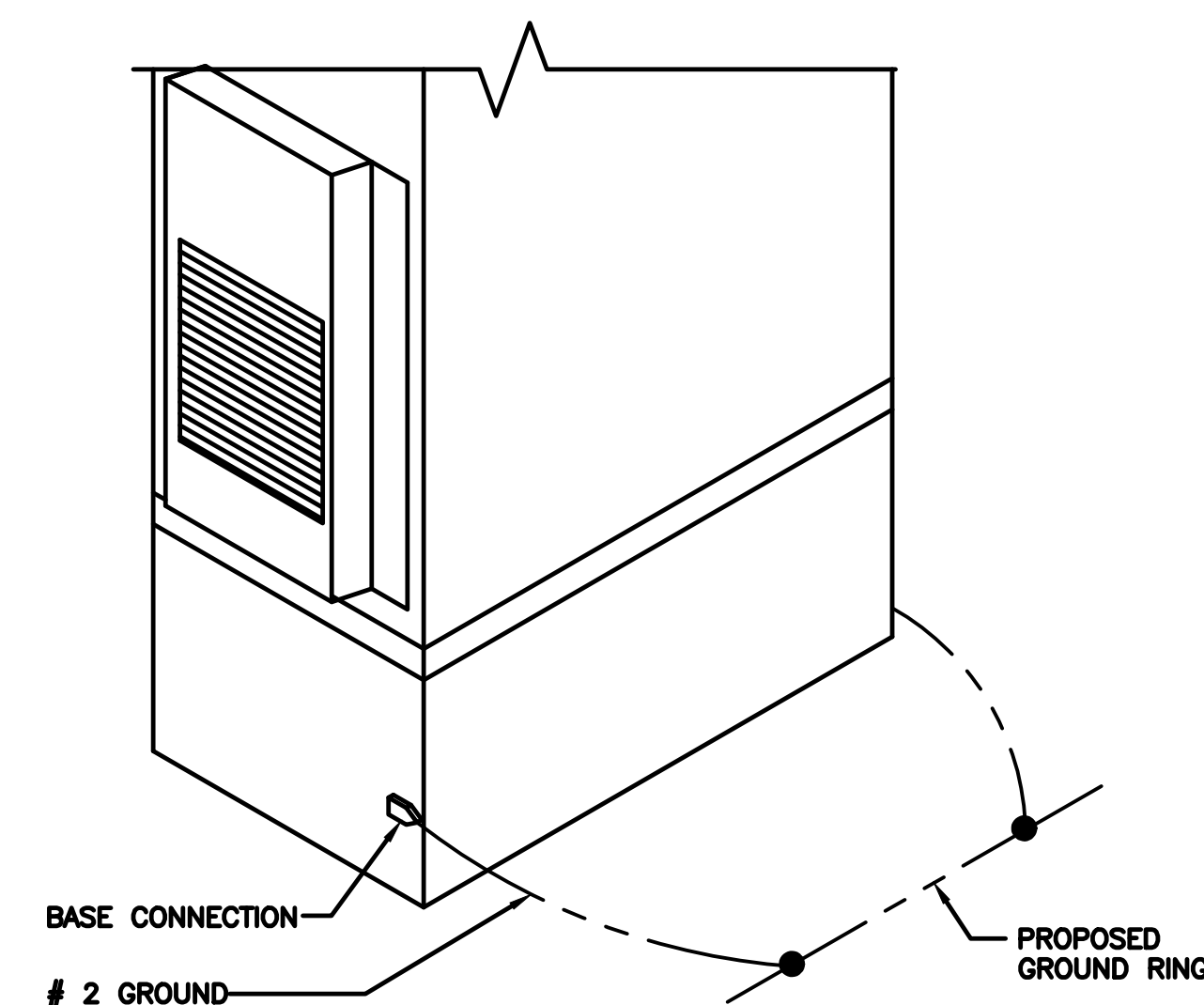
H-FRAME GROUNDING DETAIL

NO SCALE 1



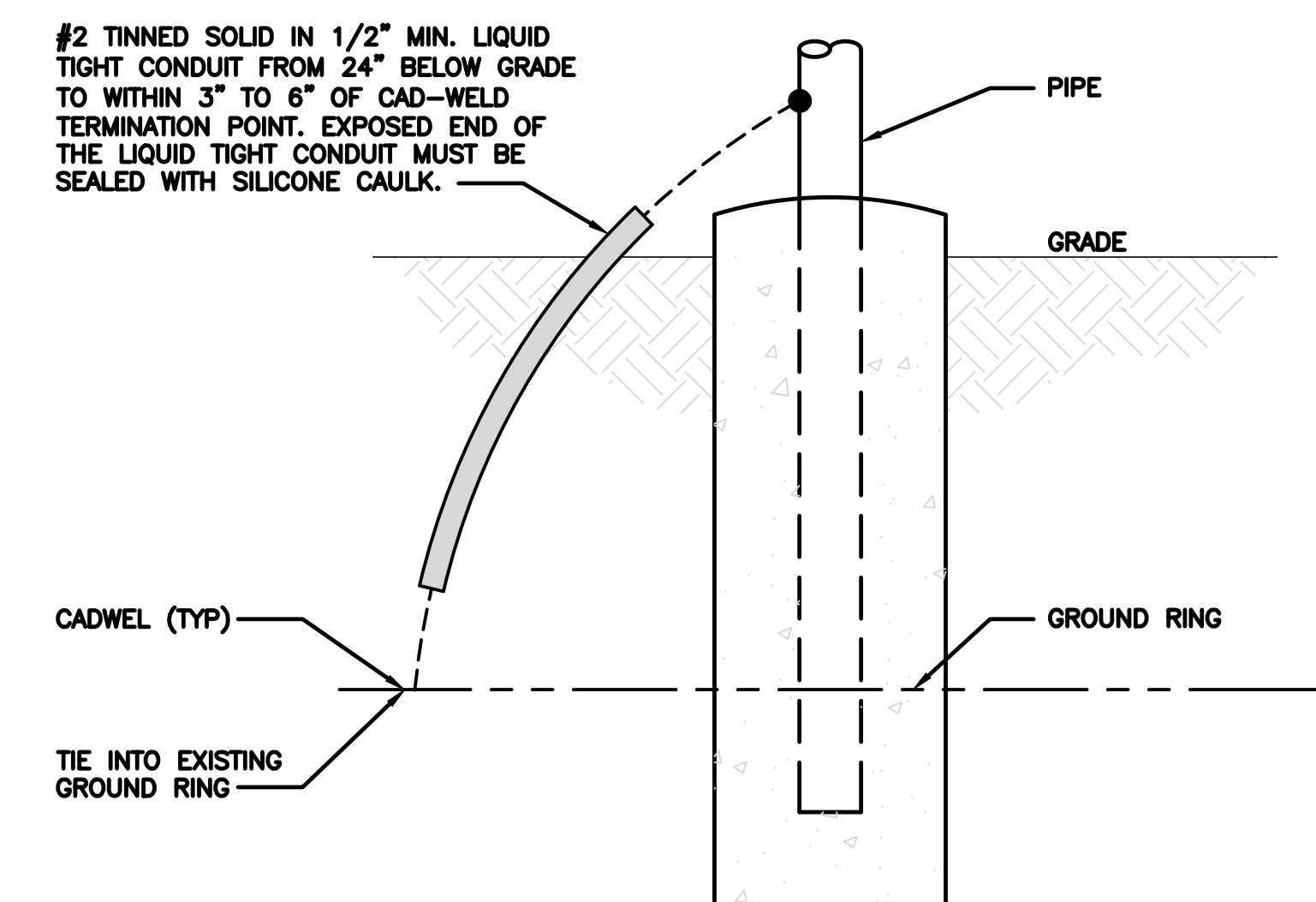
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



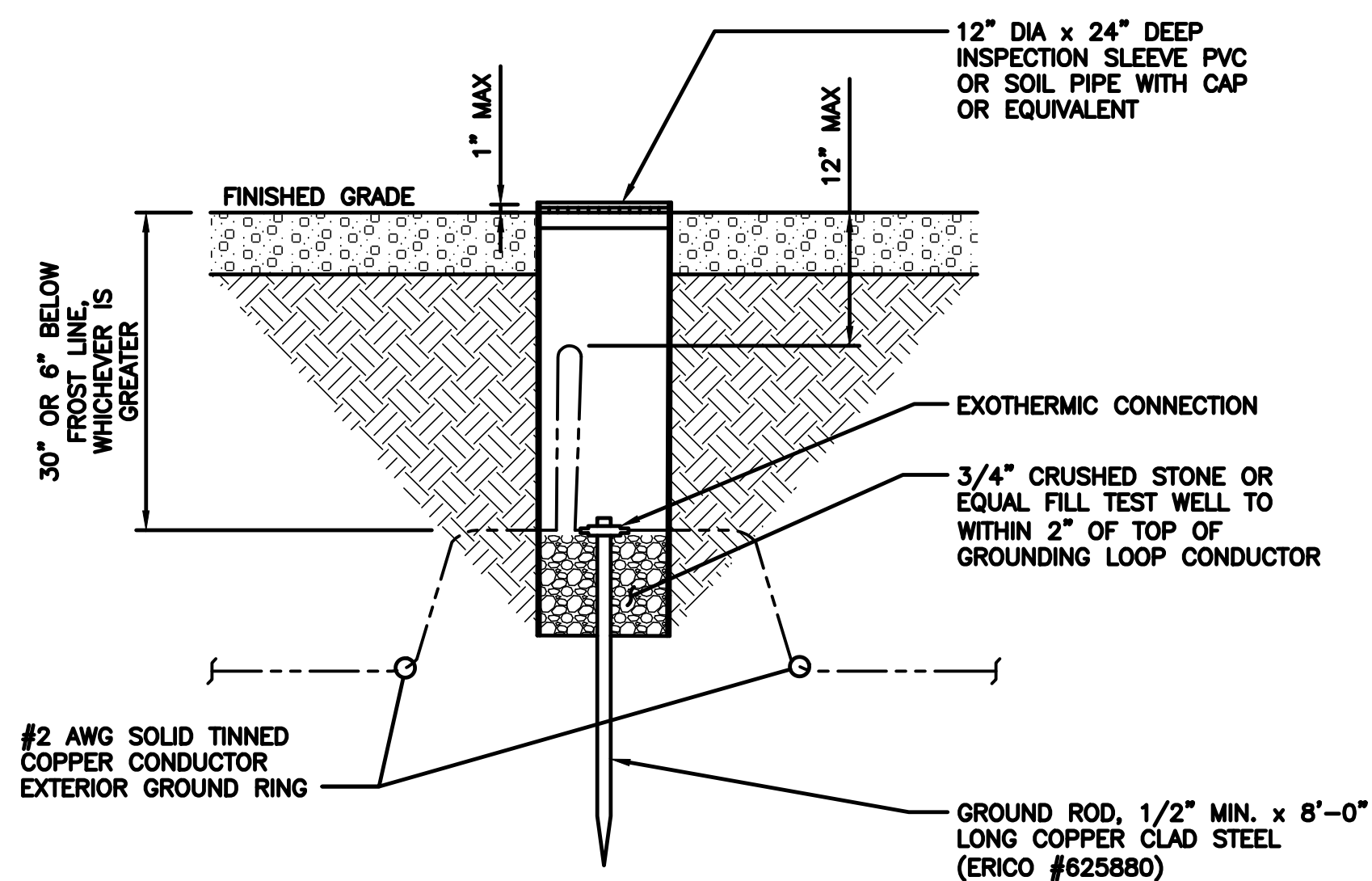
OUTDOOR CABINET GROUNDING

NO SCALE 3



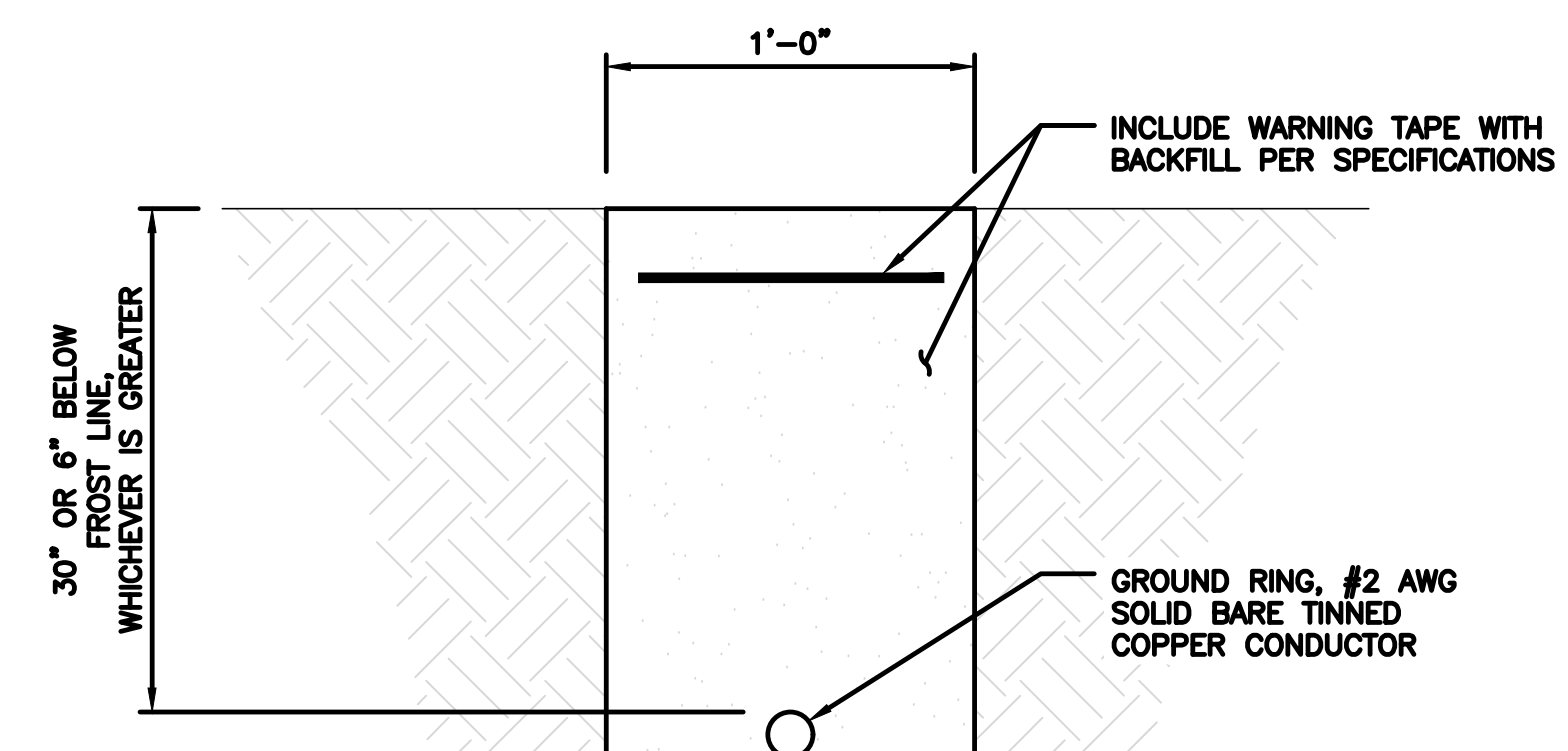
TRANSITIONING GROUND DETAIL

NO SCALE 4



TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

NO SCALE 5



TYPICAL GROUND RING TRENCH

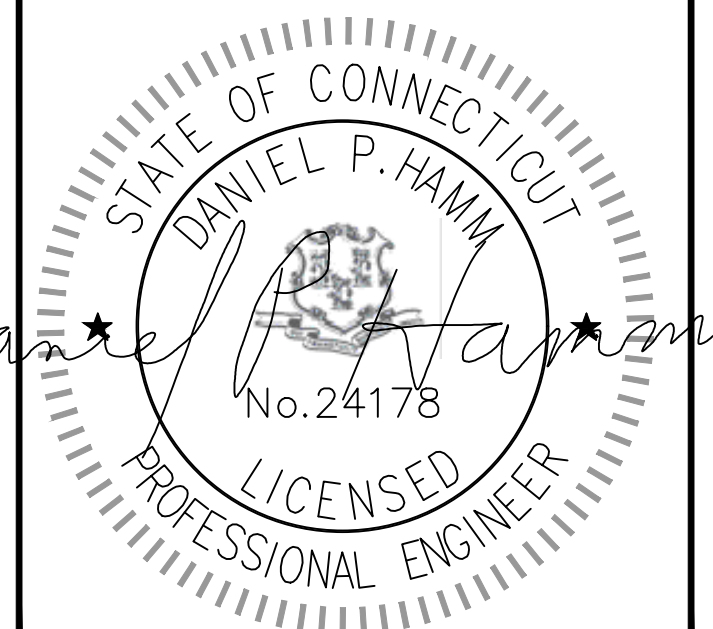
NO SCALE 6

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

HG HUDSON Design Group LLC

45 BEECHWOOD DRIVE N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:
KSBM SMA DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

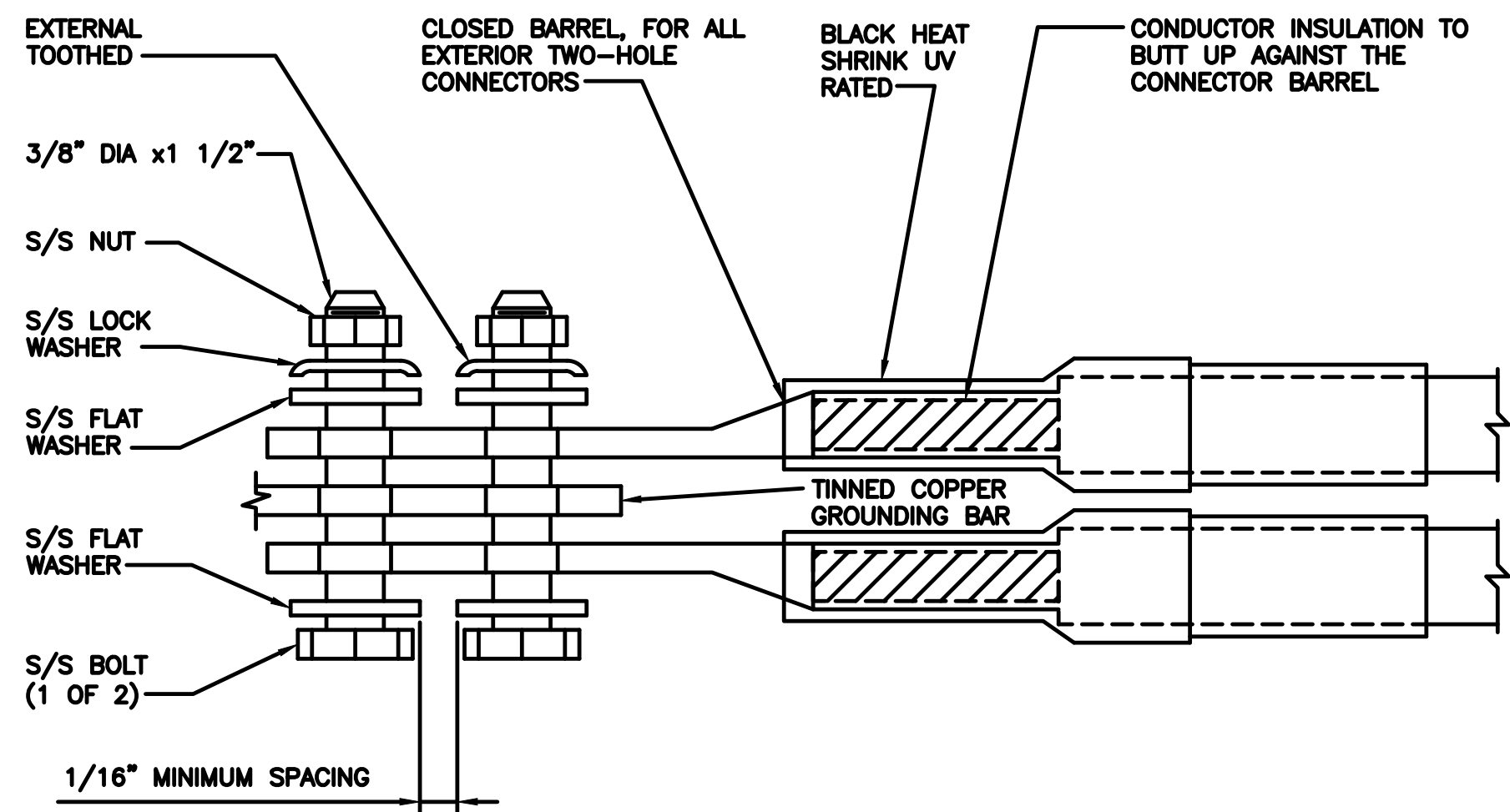
DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER

G-2

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).

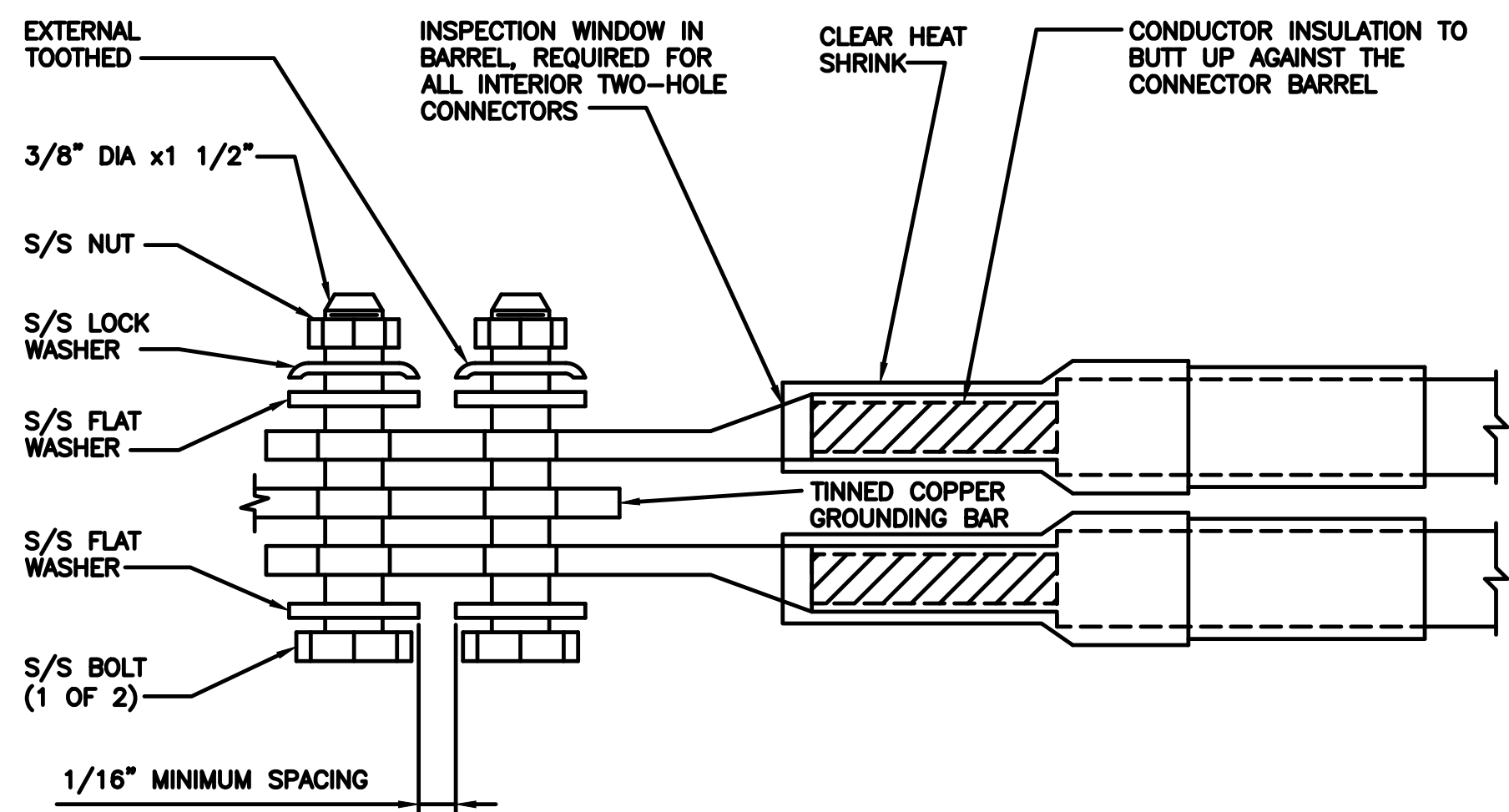


TYPICAL GROUNDING NOTES

NO SCALE 1

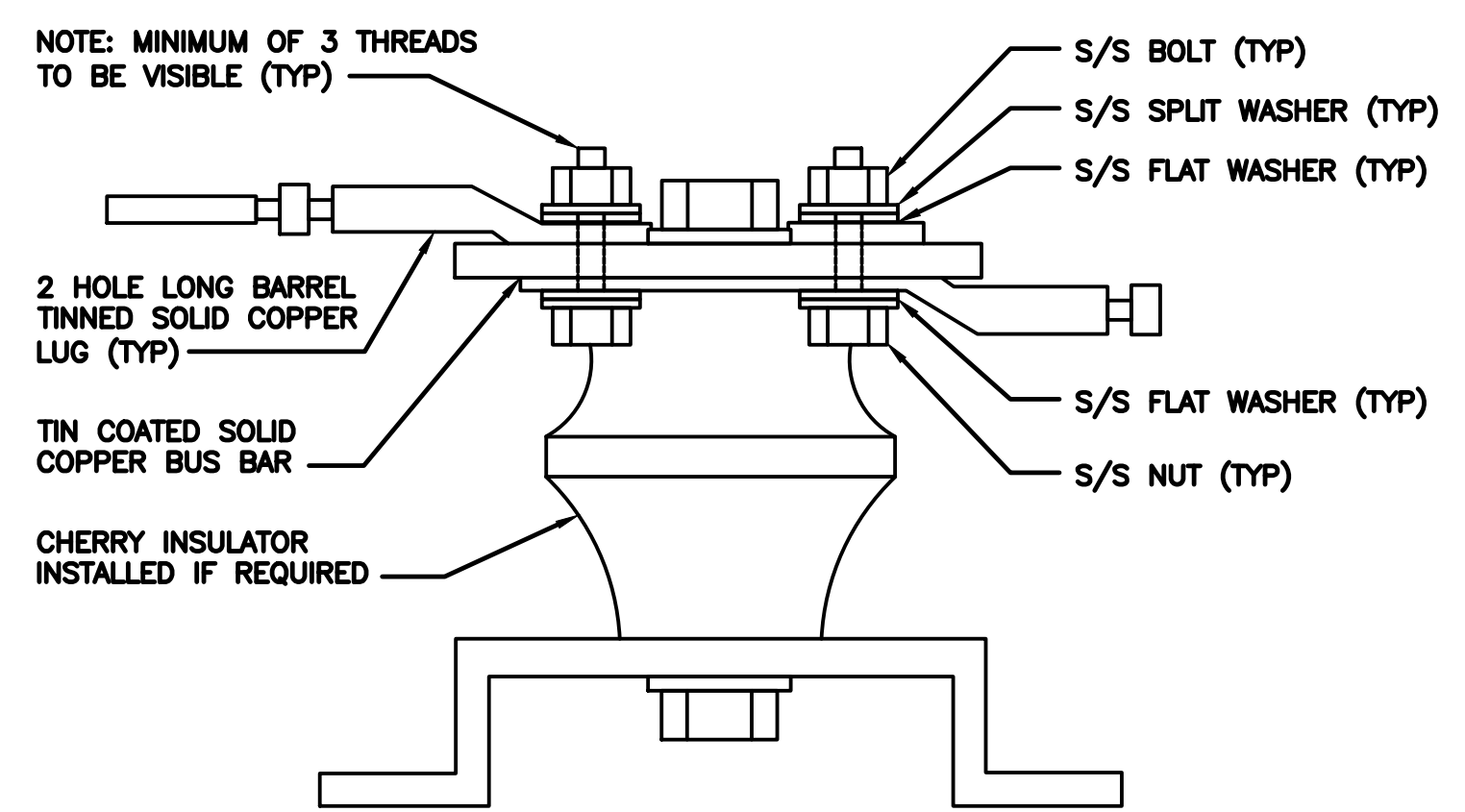
TYPICAL EXTERIOR TWO HOLE LUG

NO SCALE 2



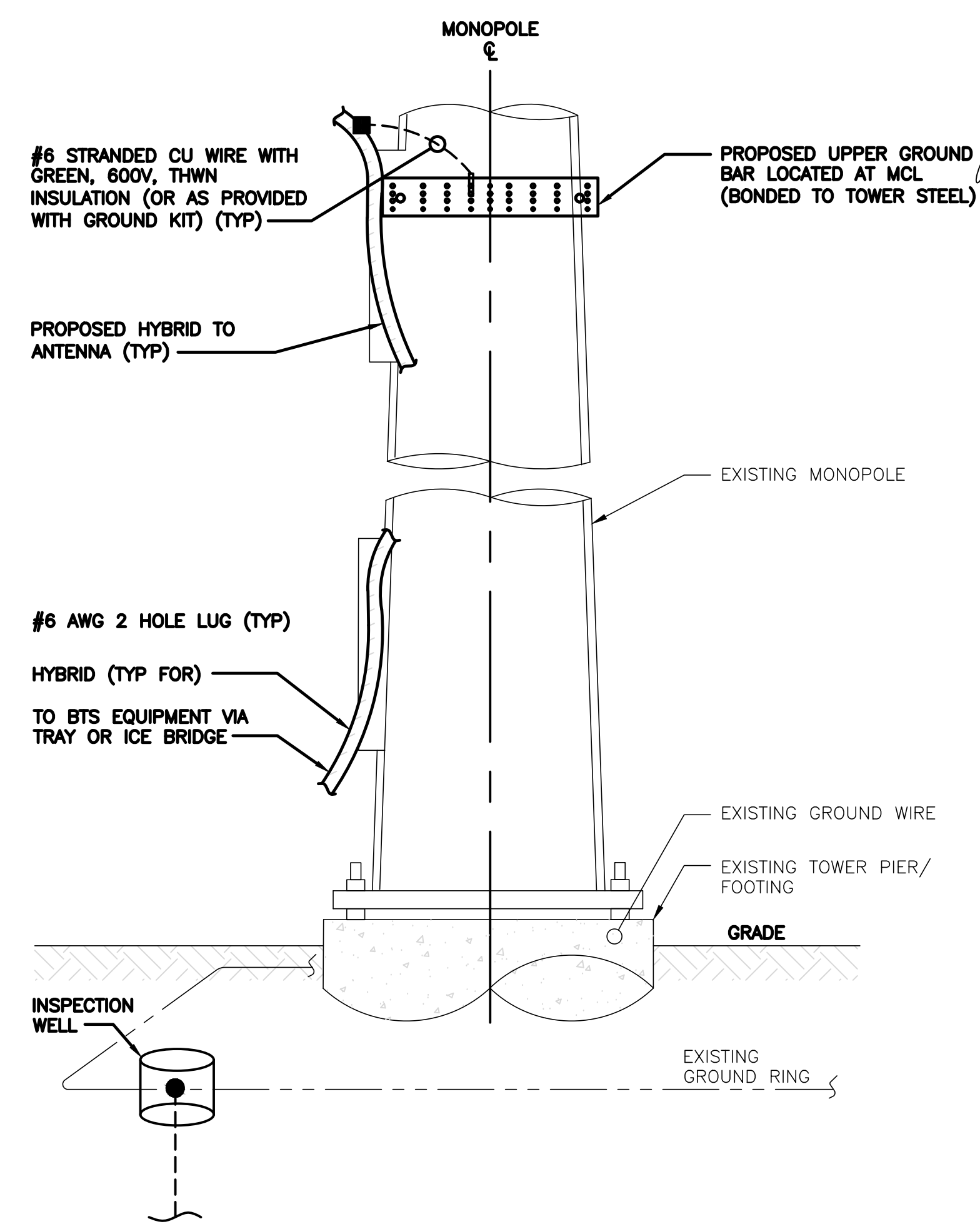
TYPICAL INTERIOR TWO HOLE LUG

NO SCALE 3



LUG DETAIL

NO SCALE 4



NOTES:

1. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
2. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

TYPICAL ANTENNA CABLE GROUNDING

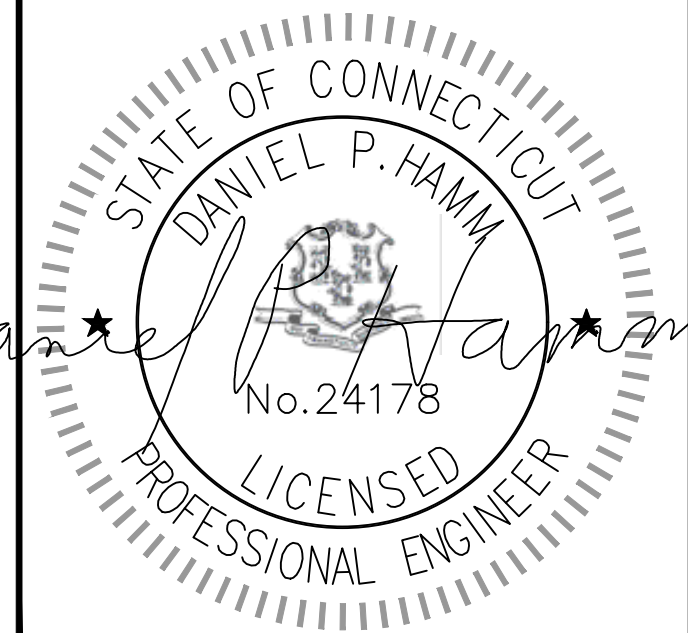
NO SCALE 5



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: KSBM CHECKED BY: SMA APPROVED BY: DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

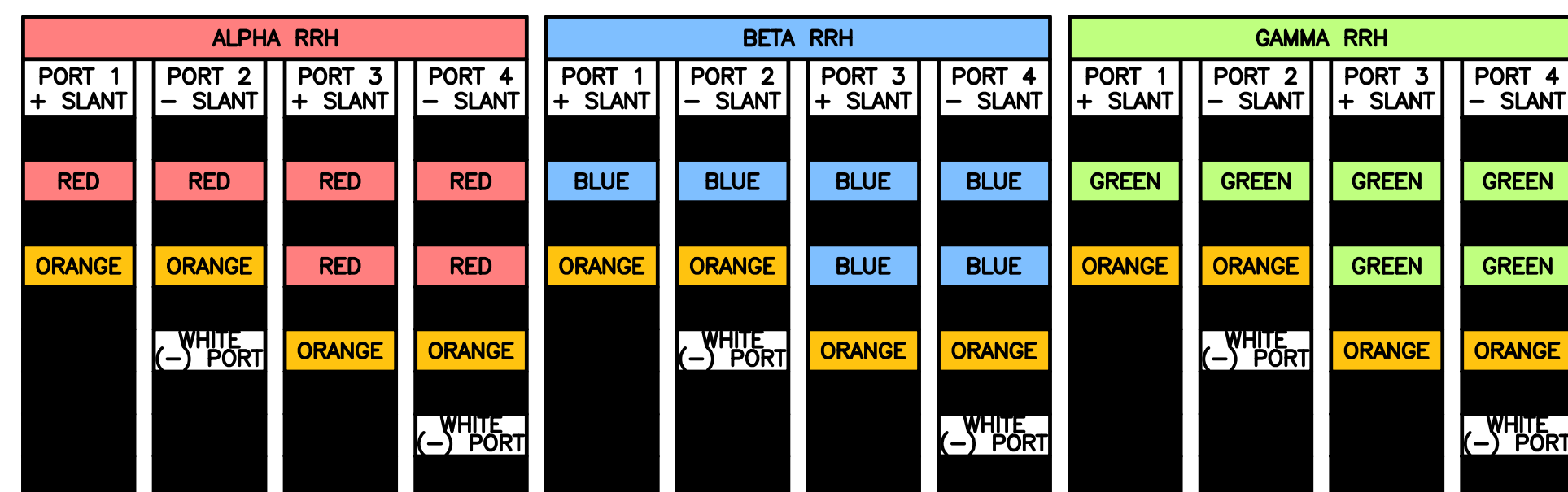
SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-3

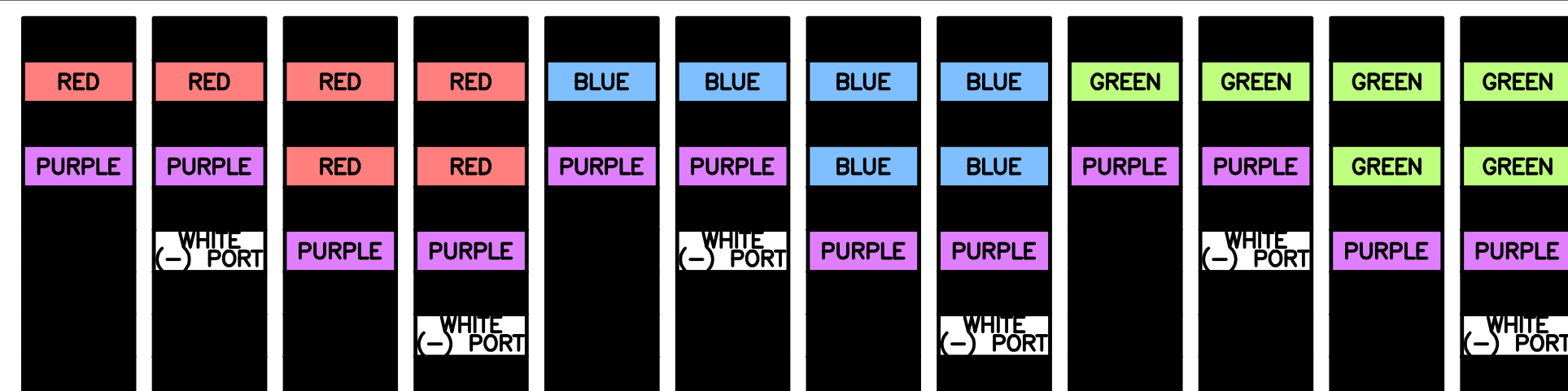
HYBRID/DISCREET CABLES

3/4" TAPE WIDTHS WITH 3/4" SPACING

LOW-BAND RRH
(600 MHz N71 BASEBAND) +
(850 MHz N26 BAND) +
(700 MHz N29 BAND) - OPTIONAL PER MARKET
ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BAND)

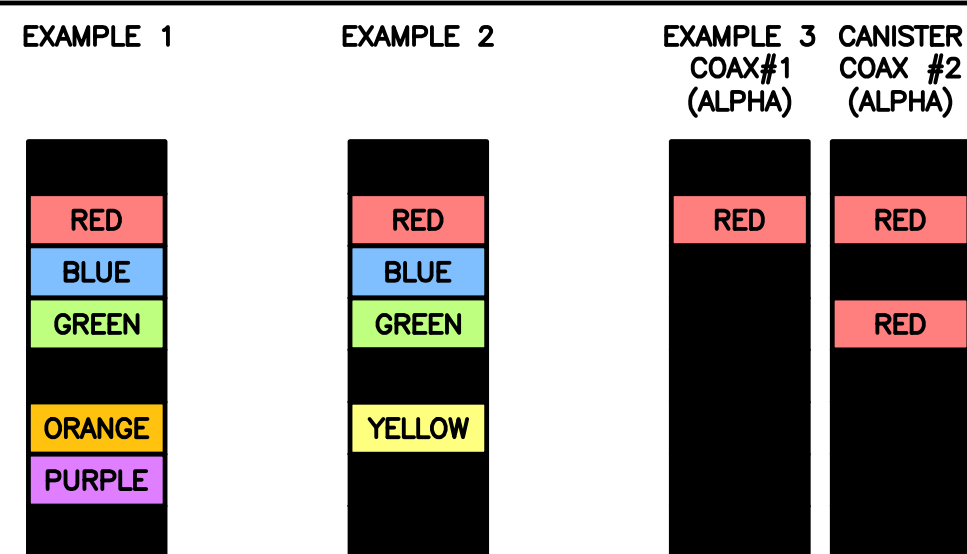


MID-BAND RRH
(AWS BANDS N66+N70)
ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)



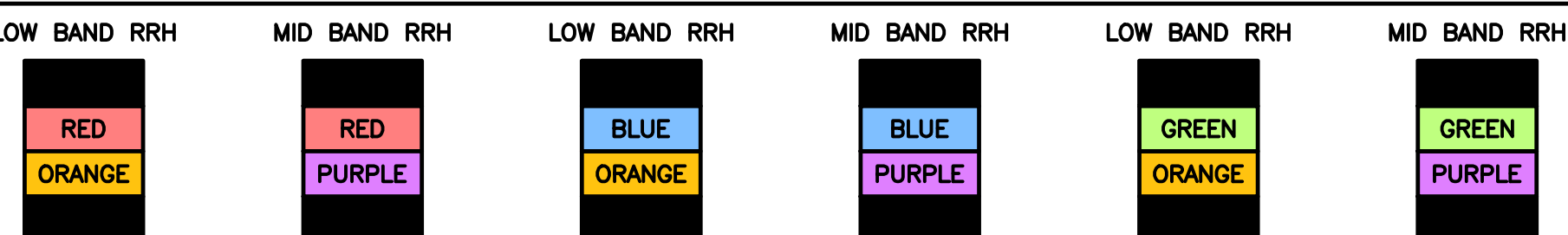
HYBRID/DISCREET CABLES

INCLUDE SECTOR BANDS BEING SUPPORTED
ALONG WITH FREQUENCY BANDS.
EXAMPLE 1 - HYBRID, OR DISCREET, SUPPORTS
ALL SECTORS, BOTH LOW-BANDS AND
MID-BANDS.
EXAMPLE 2 - HYBRID, OR DISCREET, SUPPORTS
CBRS ONLY, ALL SECTORS.
EXAMPLE 3 - MAIN COAX WITH GROUND
MOUNTED RRHS.



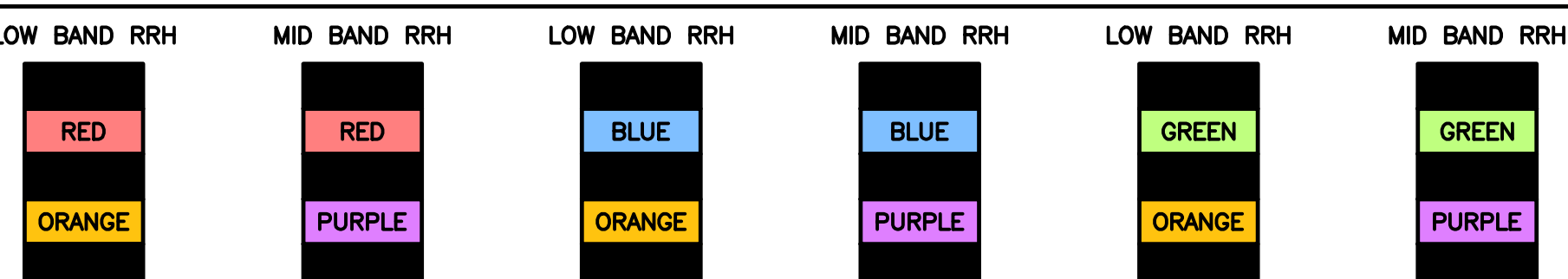
FIBER JUMPERS TO RRHS

LOW-BAND HHR FIBER CABLES HAVE SECTOR
STRIPE ONLY.



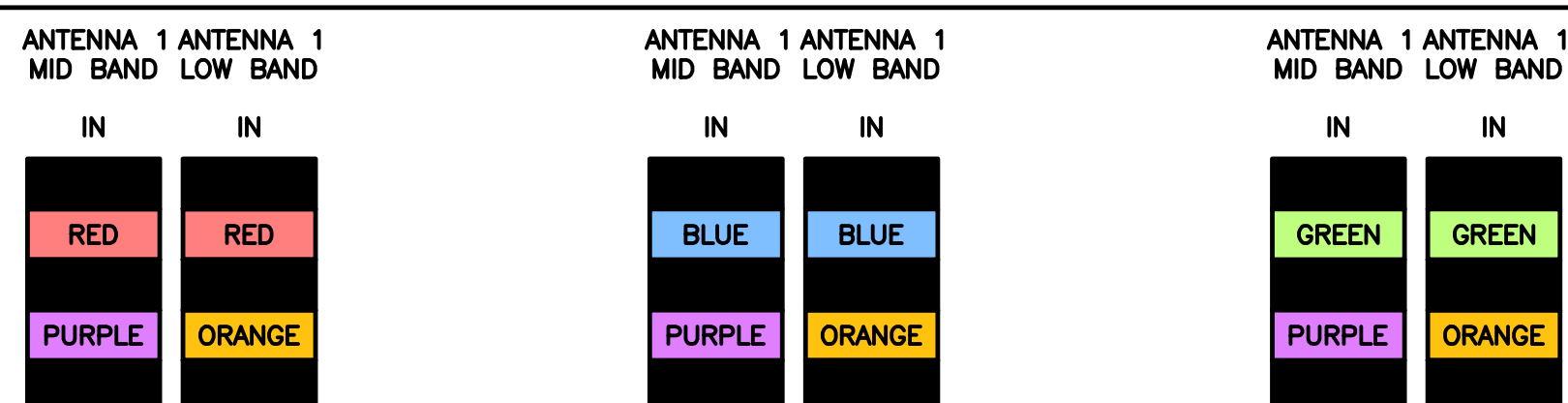
POWER CABLES TO RRHS

LOW-BAND RRH POWER CABLES HAVE SECTOR
STRIPE ONLY.



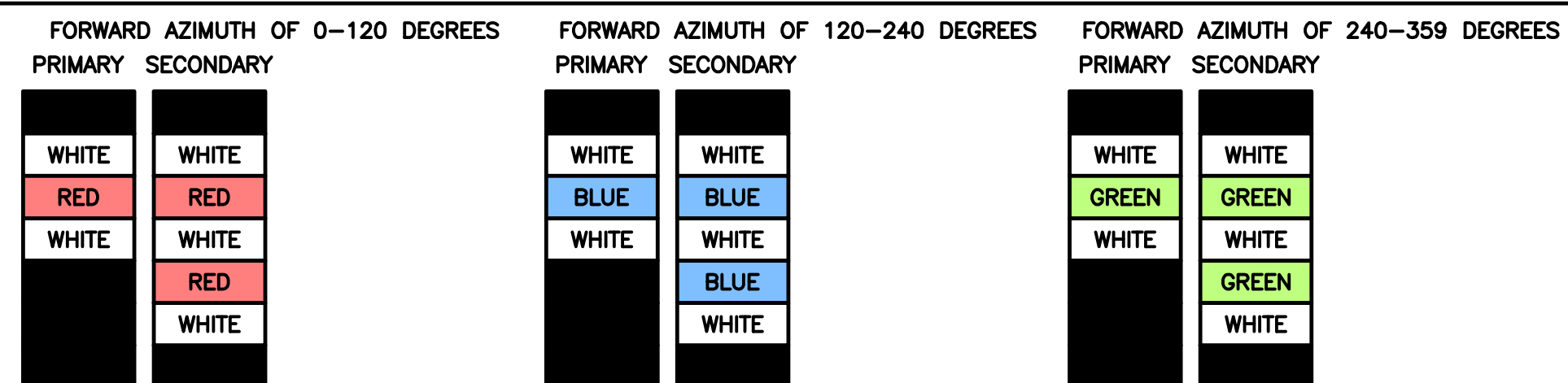
RET MOTORS AT ANTENNAS

RET CONTROL IS HANDLED BY THE MID-BAND
RRH WHEN ONE SET OF RET PORTS EXIST ON
ANTENNA.
SEPARATE RET CABLES ARE USED WHEN
ANTENNA PORTS PROVIDE INPUTS FOR BOTH
LOW AND MID BANDS.



MICROWAVE RADIO LINKS

LINKS WILL HAVE A 1.5-2 INCH WHITE WRAP
WITH THE AZIMUTH COLOR OVERLAPPING IN THE
MIDDLE.
ADD ADDITIONAL SECTOR COLOR BANDS FOR
EACH ADDITIONAL MW RADIO.
MICROWAVE CABLES WILL REQUIRE P-TOUCH
LABELS INSIDE THE CABINET TO IDENTIFY THE
LOCAL AND REMOTE SITE ID'S.



RF CABLE COLOR CODES

NO SCALE

1

NOT USED

NO SCALE

4

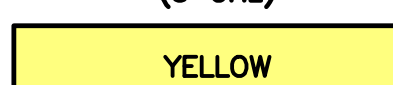
LOW BANDS (N71+N26)
OPTIONAL - (N29)



AWS
(N66+N70+H-BLOCK)



CBRS TECH
(3 GHz)



NEGATIVE SLANT PORT
ON ANT/RRH



ALPHA SECTOR



BETA SECTOR



GAMMA SECTOR



COLOR IDENTIFIER

NO SCALE

2

NOT USED

NO SCALE

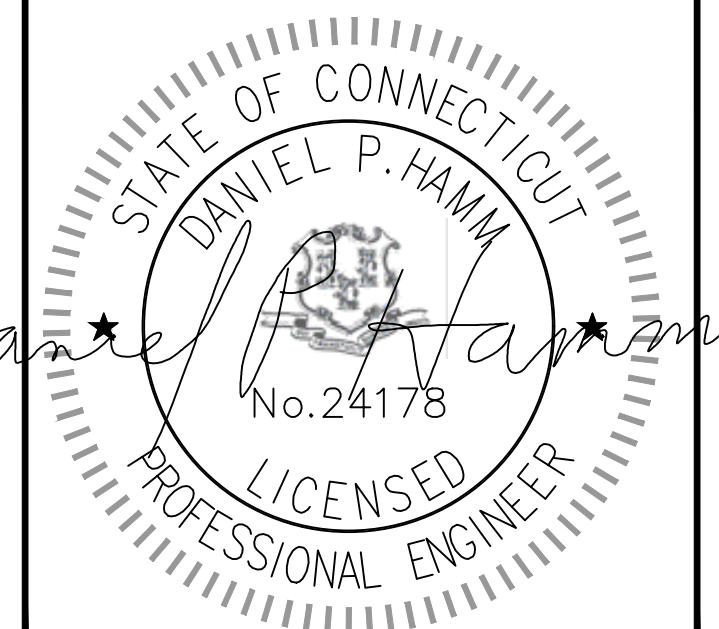
3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:
KSBM SMA DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

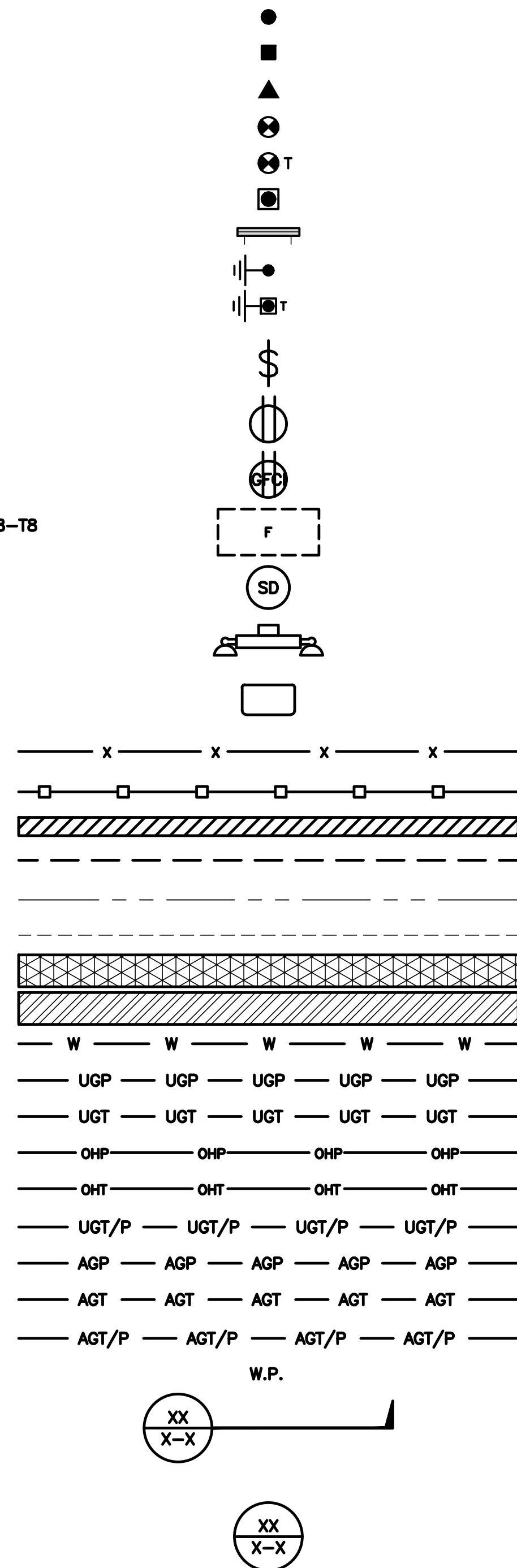
A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
RF
CABLE COLOR CODES

SHEET NUMBER
RF-1

EXOTHERMIC CONNECTION
 MECHANICAL CONNECTION
 BUSS BAR INSULATOR
 CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 EXOTHERMIC WITH INSPECTION SLEEVE
 GROUNDING BAR
 GROUND ROD
 TEST GROUND ROD WITH INSPECTION SLEEVE
 SINGLE POLE SWITCH
 DUPLEX RECEPTACLE
 DUPLEX GFCI RECEPTACLE
 FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48-T8
 SMOKE DETECTION (DC)
 EMERGENCY LIGHTING (DC)
 SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
 LED-1-25A400/51K-SR4-120-PE-DBBTXD
 CHAIN LINK FENCE
 WOOD/WROUGHT IRON FENCE
 WALL STRUCTURE
 LEASE AREA
 PROPERTY LINE (PL)
 SETBACKS
 ICE BRIDGE
 CABLE TRAY
 WATER LINE
 UNDERGROUND POWER
 UNDERGROUND TELCO
 OVERHEAD POWER
 OVERHEAD TELCO
 UNDERGROUND TELCO/POWER
 ABOVE GROUND POWER
 ABOVE GROUND TELCO
 ABOVE GROUND TELCO/POWER
 WORKPOINT



SECTION REFERENCE
 DETAIL REFERENCE

LEGEND

AB ANCHOR BOLT
 ABV ABOVE
 AC ALTERNATING CURRENT
 ADDL ADDITIONAL
 AFF ABOVE FINISHED FLOOR
 AFG ABOVE FINISHED GRADE
 AGL ABOVE GROUND LEVEL
 AIC AMPERAGE INTERRUPTION CAPACITY
 ALUM ALUMINUM
 ALT ALTERNATE
 ANT ANTENNA
 APPROX APPROXIMATE
 ARCH ARCHITECTURAL
 ATS AUTOMATIC TRANSFER SWITCH
 AWG AMERICAN WIRE GAUGE
 BATT BATTERY
 BLDG BUILDING
 BLK BLOCK
 BLKG BLOCKING
 BM BEAM
 BTC BARE TINNED COPPER CONDUCTOR
 BOF BOTTOM OF FOOTING
 CAB CABINET
 CANT CANTILEVERED
 CHG CHARGING
 CLG CEILING
 CLR CLEAR
 COL COLUMN
 COMM COMMON
 CONC CONCRETE
 CONSTR CONSTRUCTION
 DBL DOUBLE
 DC DIRECT CURRENT
 DEPT DEPARTMENT
 DF DOUGLAS FIR
 DIA DIAMETER
 DIAG DIAGONAL
 DIM DIMENSION
 DWG DRAWING
 DWL DOWEL
 EA EACH
 EC ELECTRICAL CONDUCTOR
 EL ELEVATION
 ELEC ELECTRICAL
 EMT ELECTRICAL METALLIC TUBING
 ENG ENGINEER
 EQ EQUAL
 EXP EXPANSION
 EXT EXTERIOR
 EW EACH WAY
 FAB FABRICATION
 FF FINISH FLOOR
 FG FINISH GRADE
 FIF FACILITY INTERFACE FRAME
 FIN FINISH(ED)
 FLR FLOOR
 FDN FOUNDATION
 FOC FACE OF CONCRETE
 FOM FACE OF MASONRY
 FOS FACE OF STUD
 FOW FACE OF WALL
 FS FINISH SURFACE
 FT FOOT
 FTG FOOTING
 GA GAUGE
 GEN GENERATOR
 GFCI GROUND FAULT CIRCUIT INTERRUPTER
 GLB GLUE LAMINATED BEAM
 GLV GALVANIZED
 GPS GLOBAL POSITIONING SYSTEM
 GND GROUND
 GSM GLOBAL SYSTEM FOR MOBILE
 HDG HOT DIPPED GALVANIZED
 HDR HEADER
 HGR HANGER
 HVAC HEAT/VENTILATION/AIR CONDITIONING
 HT HEIGHT
 IGR INTERIOR GROUND RING

IN INCH
 INT INTERIOR
 LB(S) POUND(S)
 LF LINEAR FEET
 LTE LONG TERM EVOLUTION
 MAS MASONRY
 MAX MAXIMUM
 MB MACHINE BOLT
 MECH MECHANICAL
 MFR MANUFACTURER
 MGB MASTER GROUND BAR
 MIN MINIMUM
 MISC MISCELLANEOUS
 MTL METAL
 MTS MANUAL TRANSFER SWITCH
 MW MICROWAVE
 NEC NATIONAL ELECTRIC CODE
 NM NEWTON METERS
 NO. NUMBER
 # NUMBER
 NTS NOT TO SCALE
 OC ON-CENTER
 OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
 OPNG OPENING
 P/C PRECAST CONCRETE
 PCS PERSONAL COMMUNICATION SERVICES
 PCU PRIMARY CONTROL UNIT
 PRC PRIMARY RADIO CABINET
 PP POLARIZING PRESERVING
 PSF POUNDS PER SQUARE FOOT
 PSI POUNDS PER SQUARE INCH
 PT PRESSURE TREATED
 PWR POWER CABINET
 QTY QUANTITY
 RAD RADIUS
 RECT RECTIFIER
 REF REFERENCE
 REINF REINFORCEMENT
 REQ'D REQUIRED
 RET REMOTE ELECTRIC TILT
 RF RADIO FREQUENCY
 RMC RIGID METALLIC CONDUIT
 RRH REMOTE RADIO HEAD
 RRU REMOTE RADIO UNIT
 RWY RACEWAY
 SCH SCHEDULE
 SHT SHEET
 SIAD SMART INTEGRATED ACCESS DEVICE
 SIM SIMILAR
 SPEC SPECIFICATION
 SQ SQUARE
 SS STAINLESS STEEL
 STD STANDARD
 STL STEEL
 TEMP TEMPORARY
 THK THICKNESS
 TMA TOWER MOUNTED AMPLIFIER
 TN TOE NAIL
 TOA TOP OF ANTENNA
 TOC TOP OF CURB
 TOF TOP OF FOUNDATION
 TOP TOP OF PLATE (PARAPET)
 TOS TOP OF STEEL
 TOW TOP OF WALL
 TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
 TYP TYPICAL
 UG UNDERGROUND
 UL UNDERWRITERS LABORATORY
 UNO UNLESS NOTED OTHERWISE
 UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
 UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
 VIF VERIFIED IN FIELD
 W WIDE
 W/ WITH
 WD WOOD
 WP WEATHERPROOF
 WT WEIGHT

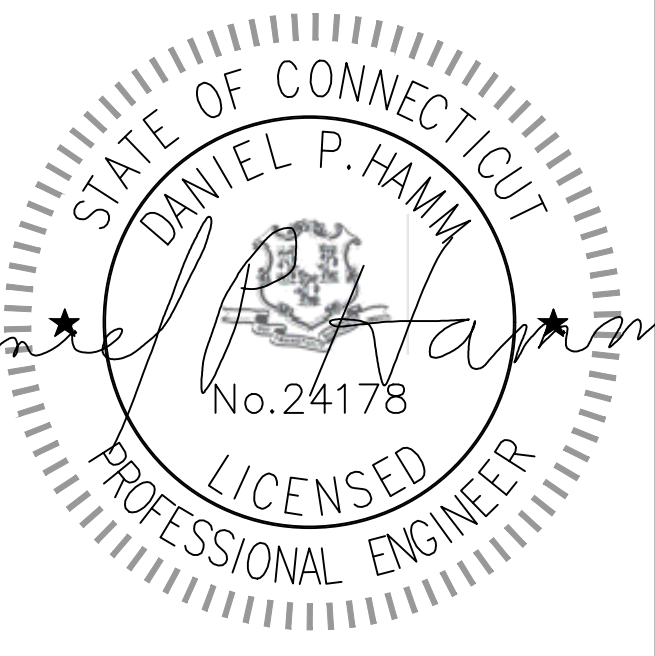
ABBREVIATIONS



5701 SOUTH SANTA FE DRIVE
 LITTLETON, CO 80120



45 BEECHWOOD DRIVE N. ANDOVER, MA 01845
 TEL: (978) 557-5553 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: KSBM CHECKED BY: SMA APPROVED BY: DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
 BOHVN00167A

DISH Wireless L.L.C.
 PROJECT INFORMATION
 CROWN CASTLE BU#876320
 BOHVN00167A
 528 WHEELERS FARM ROAD
 MILFORD, CT 060460

SHEET TITLE
 LEGEND AND ABBREVIATIONS

SHEET NUMBER
GN-1

SITE ACTIVITY REQUIREMENTS:

- NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.
- "LOOK UP" – DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
- ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

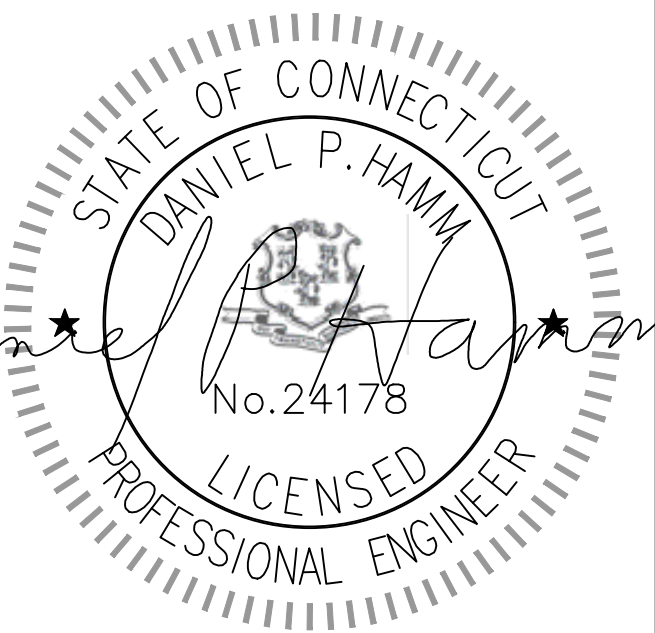
- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER:DISH Wireless L.L.C.
TOWER OWNER:TOWER OWNER
- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH Wireless L.L.C. AND TOWER OWNER
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY:	CHECKED BY:	APPROVED BY:
KSBM	SMA	DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
 #4 BARS AND SMALLER 40 ksi
 #5 BARS AND LARGER 60 ksi
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 BARS AND LARGER 2"
 - #5 BARS AND SMALLER 1-1/2"
 - CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
 - SLAB AND WALLS 3/4"
 - BEAMS AND COLUMNS 1-1/2"
- A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
 - ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
 - ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
- EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- TIE WRAPS ARE NOT ALLOWED.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

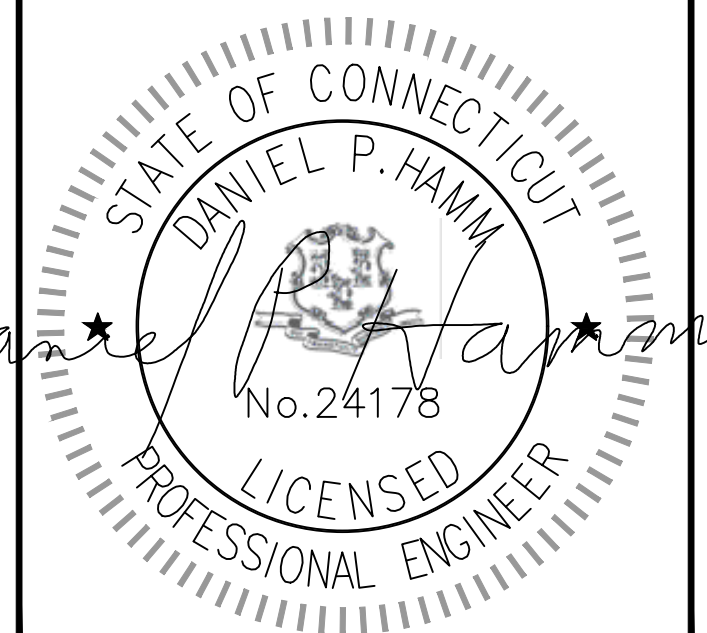
- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
- SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C."
- ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY:	CHECKED BY:	APPROVED BY:
KSBM	SMA	DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-3

GROUNDING NOTES:

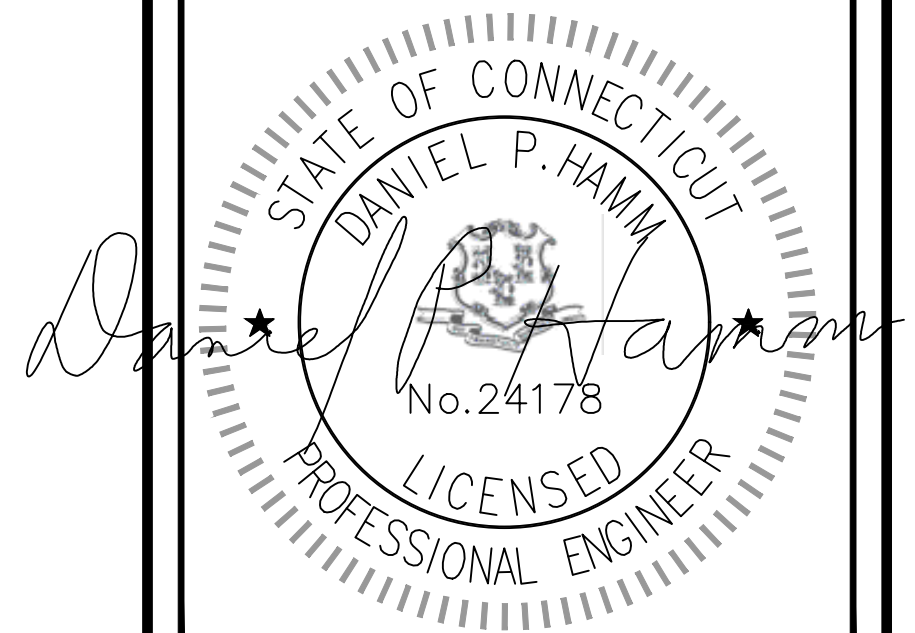
1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY:	CHECKED BY:	APPROVED BY:
KSBM	SMA	DPH

RFDS REV #: 2

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	10/22/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
BOHVN00167A

DISH Wireless L.L.C.
PROJECT INFORMATION
CROWN CASTLE BU#876320
BOHVN00167A
528 WHEELERS FARM ROAD
MILFORD, CT 060460

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-4

Exhibit D

Structural Analysis Report

Date: **May 27, 2021**



Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
724-416-2000

Subject: **Structural Analysis Report**

Carrier Designation: **DISH Network Co-Locate**
Site Number: BOHVN00167A
Site Name: CT-CCI-T-876320

Crown Castle Designation: **BU Number:** 876320
Site Name: 528 WHEELERS FARM RD
JDE Job Number: 645177
Work Order Number: 1962912
Order Number: 553384 Rev. 0

Engineering Firm Designation: **Crown Castle Project Number:** 1962912

Site Data: **528 Wheelers Farm Road, MILFORD, New Haven County, CT**
Latitude 41° 14' 54.35", Longitude -73° 4' 44.67"
120 Foot - Monopole Tower

Crown Castle is pleased to submit this “**Structural Analysis Report**” to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration

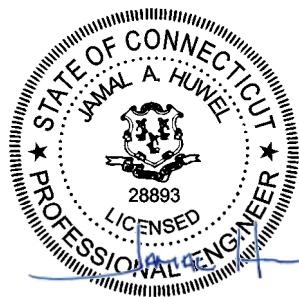
Sufficient Capacity - 97.7%

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - "Analysis Criteria".

Structural analysis prepared by: Bernadette Rossmiller

Respectfully submitted by:

Jamal A. Huwel, P.E.
Director Engineering



Digitally signed by Jamal A
Huwel
Date: 2021.05.28 16:21:09 -04'00'

TABLE OF CONTENTS

1) INTRODUCTION

2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration

Table 2 - Other Considered Equipment

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

3.1) Analysis Method

3.2) Assumptions

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Table 5 - Tower Component Stresses vs. Capacity - LC7

4.1) Recommendations

5) APPENDIX A

tnxTower Output

6) APPENDIX B

Base Level Drawing

7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This tower is a 120 ft Monopole tower designed by SUMMIT. The tower has been modified multiple times to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	125 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
86.0	86.0	3	fujitsu	TA08025-B604	1	1-3/8
		3	fujitsu	TA08025-B605		
		3	jma wireless	MX08FRO665-21 w/ Mount Pipe		
		1	raycap	RDIDC-9181-PF-48		
		1	tower mounts	Commscope MC-PK8-DSH		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)			
122.0	123.0	1	mti wireless edge	MT-485025/NVH w/ Mount Pipe	4 6 1 3 2	1-1/4 5/16 1/8 7983A conduit			
	122.0	1	tower mounts	Platform Mount [LP 1201-1_HR-1]					
	121.0		1	alcatel lucent			800MHZ RRH		
			2	alcatel lucent			PCS 1900MHz 4x45W-65MHz		
			3	alcatel lucent			TD-RRH8x20-25		
			3	rfs celwave_cfd			APXVSPP18-C-A20 w/ Mount Pipe		
			3	rfs celwave_cfd			APXVTM14-ALU-I20 w/ Mount Pipe		
	120.0		3	alcatel lucent			800 EXTERNAL NOTCH FILTER		
			2	alcatel lucent			800MHZ RRH		
			1	alcatel lucent			PCS 1900MHz 4x45W-65MHz		
			9	rfs celwave			ACU-A20-N		
	113.0	114.0	3	samsung telecommunications			RFV01U-D1A	8	1-5/8
			3	samsung telecommunications			RFV01U-D2A		
2			andrew	DB846F65ZAXY w/ Mount Pipe					

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		4	antel	LPA-80063/4CF w/ Mount Pipe		
		3	commscope	CBC78T-DS-43-2X		
		4	commscope	JAHH-45B-R3B w/ Mount Pipe		
		2	commscope	JAHH-65B-R3B w/ Mount Pipe		
		2	rfs celwave	DB-T1-6Z-8AB-0Z		
		3	samsung telecommunications	CBRS w/ Mount Pipe		
	113.0	1	tower mounts	Platform Mount [LP 305-1_KCKR-HR-1]		
105.0	107.0	3	ericsson	AIR 32 B2a/B66Aa w/ Mount Pipe	3 1	1-5/8 1-5/8
		3	ericsson	AIR 3246 B66 w/ Mount Pipe		
		3	ericsson	AIR6449 B41 w/ Mount Pipe		
		3	ericsson	RADIO 4449 B71/B85A		
		3	ericsson	RRUS 4415 B25_CCIV2		
	3	rfs celwave_cfd	APXVAARR24_43-U-NA20 w/ Mount Pipe			
	105.0	1	tower mounts	SitePro1 RMQP-4096-HK		
97.0	97.0	3	ericsson	RRUS 32 B30	-	-
		2	raycap	DC6-48-60-18-8F		
		1	tower mounts	Side Arm Mount [SO 102-3]		
96.0	98.0	2	commscope	WCS-IMFQ-AMT	3 6 12	3/8 3/4 1-1/4
		3	ericsson	RRUS 32		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 4478 B14		
		3	ericsson	RRUS 8843 B2/B66A		
		6	kaelus	DBC0061F1V51-2		
		6	kathrein_cfd	80010965 w/ Mount Pipe		
		3	powerwave technologies	7770.00 w/ Mount Pipe		
		6	powerwave technologies	LGP21401		
		3	quintel technology_cfd	QS66512-2 w/ Mount Pipe		
	3	raycap	DC6-48-60-18-8F			
	96.0	1	tower mounts	Miscellaneous [NA 507-1]		
		1	tower mounts	Platform Mount [LP 712-1]		
82.0	82.0	-	-	-	12	7/8
75.0	76.0	1	trimble	ACUTIME 2000	1	1/2
	75.0	1	tower mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	1613534	CCISITES
4-POST-MODIFICATION INSPECTION	2460628	CCISITES
4-POST-MODIFICATION INSPECTION	3349204	CCISITES
4-POST-MODIFICATION INSPECTION	3350209	CCISITES
4-POST-MODIFICATION INSPECTION	3753892	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	1614583	CCISITES
4-TOWER MANUFACTURER DRAWINGS	1614557	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	9101035	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	8550831	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	5873963	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	4961357	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	3338935	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	3349207	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	2460630	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	1613579	CCISITES
4-POST-MODIFICATION INSPECTION	8820087	CCISITES
4-POST-MODIFICATION INSPECTION	6112300	CCISITES
4-POST-MODIFICATION INSPECTION	5760332	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.9.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the pole and in the reinforcing elements. These calculations are included in Appendix C.

3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Crown Castle should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
120 - 115	Pole	TP23.01x22x0.25	Pole	5.9%	Pass
115 - 110	Pole	TP24.02x23.01x0.25	Pole	14.1%	Pass
110 - 105	Pole	TP25.031x24.02x0.25	Pole	22.4%	Pass
105 - 100	Pole	TP26.041x25.031x0.25	Pole	35.1%	Pass
100 - 99.25	Pole	TP26.192x26.041x0.25	Pole	36.7%	Pass
99.25 - 99	Pole + Reinf.	TP26.243x26.192x0.3563	Reinf. 14 Tension Rupture	33.5%	Pass
99 - 94	Pole + Reinf.	TP27.253x26.243x0.3563	Reinf. 14 Tension Rupture	46.1%	Pass
94 - 90.08	Pole + Reinf.	TP28.045x27.253x0.3125	Pole	56.1%	Pass
90.08 - 89.83	Pole + Reinf.	TP28.096x28.045x0.5125	Reinf. 11 Tension Rupture	46.8%	Pass
89.83 - 89.5	Pole + Reinf.	TP28.162x28.096x0.5125	Reinf. 11 Tension Rupture	47.5%	Pass
89.5 - 89.25	Pole + Reinf.	TP28.213x28.162x0.725	Reinf. 15 Tension Rupture	36.7%	Pass
89.25 - 84.25	Pole + Reinf.	TP29.223x28.213x0.7	Reinf. 15 Tension Rupture	45.1%	Pass
84.25 - 81.75	Pole + Reinf.	TP30.486x29.223x0.7	Reinf. 15 Tension Rupture	49.3%	Pass
81.75 - 77	Pole + Reinf.	TP30.188x29.228x0.8625	Reinf. 17 Tension Rupture	45.3%	Pass
77 - 76.75	Pole + Reinf.	TP30.239x30.188x0.8625	Reinf. 17 Tension Rupture	45.6%	Pass
76.75 - 76.5	Pole + Reinf.	TP30.289x30.239x0.9625	Reinf. 14 Tension Rupture	42.9%	Pass
76.5 - 75.5	Pole + Reinf.	TP30.491x30.289x0.9625	Reinf. 14 Tension Rupture	44.1%	Pass
75.5 - 75.25	Pole + Reinf.	TP30.542x30.491x0.7625	Reinf. 17 Tension Rupture	50.8%	Pass
75.25 - 74.5	Pole + Reinf.	TP30.693x30.542x0.7625	Reinf. 17 Tension Rupture	51.8%	Pass
74.5 - 74.25	Pole + Reinf.	TP30.744x30.693x0.8375	Reinf. 17 Tension Rupture	54.6%	Pass
74.25 - 72	Pole + Reinf.	TP31.198x30.744x0.825	Reinf. 17 Tension Rupture	57.6%	Pass
72 - 71.75	Pole + Reinf.	TP31.249x31.198x0.7625	Reinf. 17 Tension Rupture	55.2%	Pass
71.75 - 70.5	Pole + Reinf.	TP31.501x31.249x0.7625	Reinf. 17 Tension Rupture	56.8%	Pass
70.5 - 70.25	Pole + Reinf.	TP31.552x31.501x0.7875	Reinf. 17 Tension Rupture	56.9%	Pass
70.25 - 70	Pole + Reinf.	TP31.602x31.552x0.7875	Reinf. 17 Tension Rupture	57.2%	Pass
70 - 69.75	Pole + Reinf.	TP31.653x31.602x0.725	Reinf. 17 Tension Rupture	59.3%	Pass
69.75 - 69.5	Pole + Reinf.	TP31.703x31.653x0.875	Reinf. 4 Tension Rupture	50.4%	Pass
69.5 - 69.25	Pole + Reinf.	TP31.754x31.703x0.75	Reinf. 4 Tension Rupture	56.4%	Pass
69.25 - 64.25	Pole + Reinf.	TP32.764x31.754x0.7375	Reinf. 4 Tension Rupture	62.1%	Pass
64.25 - 59.25	Pole + Reinf.	TP33.774x32.764x0.7125	Reinf. 4 Tension Rupture	67.5%	Pass
59.25 - 56	Pole + Reinf.	TP34.431x33.774x0.7125	Reinf. 4 Tension Rupture	70.8%	Pass
56 - 55.75	Pole + Reinf.	TP34.481x34.431x0.8125	Reinf. 7 Tension Rupture	68.1%	Pass
55.75 - 55.5	Pole + Reinf.	TP34.532x34.481x0.8125	Reinf. 7 Tension Rupture	68.4%	Pass
55.5 - 55.25	Pole + Reinf.	TP34.582x34.532x0.8875	Reinf. 7 Tension Rupture	61.6%	Pass
55.25 - 54	Pole + Reinf.	TP34.835x34.582x0.875	Reinf. 7 Tension Rupture	62.8%	Pass
54 - 53.75	Pole + Reinf.	TP34.885x34.835x0.75	Reinf. 7 Tension Rupture	72.0%	Pass
53.75 - 53.5	Pole + Reinf.	TP34.936x34.885x0.7375	Reinf. 7 Tension Rupture	72.3%	Pass
53.5 - 53.25	Pole + Reinf.	TP34.986x34.936x0.6625	Reinf. 4 Tension Rupture	77.6%	Pass
53.25 - 53	Pole + Reinf.	TP35.037x34.986x0.6	Reinf. 12 Tension Rupture	80.3%	Pass
53 - 48	Pole + Reinf.	TP36.047x35.037x0.5875	Reinf. 12 Tension Rupture	85.6%	Pass
48 - 44.5	Pole + Reinf.	TP37.714x36.047x0.5875	Reinf. 12 Tension Rupture	89.1%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
44.5 - 38.75	Pole + Reinf.	TP37.291x36.129x0.6625	Reinf. 4 Tension Rupture	87.3%	Pass
38.75 - 34.75	Pole + Reinf.	TP38.099x37.291x0.6625	Reinf. 4 Tension Rupture	90.4%	Pass
34.75 - 34.5	Pole + Reinf.	TP38.15x38.099x0.825	Reinf. 3 Tension Rupture	72.5%	Pass
34.5 - 33.75	Pole + Reinf.	TP38.301x38.15x0.825	Reinf. 3 Tension Rupture	72.9%	Pass
33.75 - 33.5	Pole + Reinf.	TP38.352x38.301x0.625	Reinf. 6 Tension Rupture	89.8%	Pass
33.5 - 28.5	Pole + Reinf.	TP39.362x38.352x0.6125	Reinf. 6 Tension Rupture	93.2%	Pass
28.5 - 24	Pole + Reinf.	TP40.271x39.362x0.6625	Reinf. 3 Tension Rupture	96.2%	Pass
24 - 23.75	Pole + Reinf.	TP40.322x40.271x0.7	Reinf. 3 Tension Rupture	92.0%	Pass
23.75 - 18.75	Pole + Reinf.	TP41.332x40.322x0.6875	Reinf. 3 Tension Rupture	95.1%	Pass
18.75 - 14.25	Pole + Reinf.	TP42.241x41.332x0.675	Reinf. 3 Tension Rupture	97.7%	Pass
14.25 - 14	Pole + Reinf.	TP42.291x42.241x0.775	Reinf. 3 Tension Rupture	85.0%	Pass
14 - 9	Pole + Reinf.	TP43.302x42.291x0.7625	Reinf. 3 Tension Rupture	87.6%	Pass
9 - 5	Pole + Reinf.	TP44.11x43.302x0.75	Reinf. 3 Tension Rupture	89.5%	Pass
5 - 4.75	Pole + Reinf.	TP44.16x44.11x0.9125	Reinf. 3 Tension Rupture	81.1%	Pass
4.75 - 4.5	Pole + Reinf.	TP44.211x44.16x0.875	Reinf. 1 Compression	81.8%	Pass
4.5 - 0	Pole + Reinf.	TP45.12x44.211x0.85	Reinf. 1 Compression	83.6%	Pass
				Summary	
			Pole	72.1%	Pass
			Reinforcement	97.7%	Pass
			Overall	97.7%	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	80.4	Pass
1	Base Plate	0	60.1	Pass
1	Base Foundation (Structure)	0	85.2	Pass
1	Base Foundation (Soil Interaction)	0	64.4	Pass

Structure Rating (max from all components) =	97.7%
-----------------------------------------------------	--------------

Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A
TNXTOWER OUTPUT

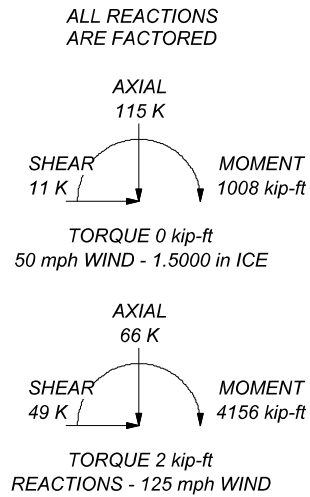
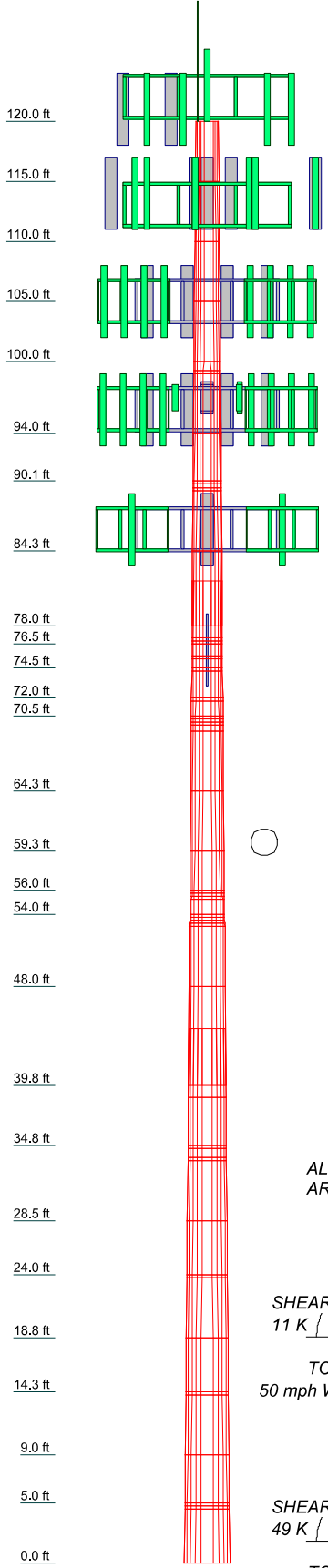
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A607-60	60 ksi	75 ksi			

TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 97.7%

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.00	12	0.2500	3.75	24.0205	23.0102	23.0102	0.3
2	5.00	12	0.2500	3.75	24.0205	24.0205	24.0205	0.3
3	5.00	12	0.2500	3.75	24.0205	25.0307	25.0307	0.3
4	5.00	12	0.2500	3.75	24.0205	26.0410	26.0410	0.3
5	5.00	12	0.2500	3.75	24.0205	27.0513	27.0513	0.3
6	5.00	12	0.2500	3.75	24.0205	28.0616	28.0616	0.3
7	5.00	12	0.2500	3.75	24.0205	29.0719	29.0719	0.3
8	5.00	12	0.2500	3.75	24.0205	30.0822	30.0822	0.3
9	5.00	12	0.2500	3.75	24.0205	31.0925	31.0925	0.3
10	5.00	12	0.2500	3.75	24.0205	32.1028	32.1028	0.3
11	5.00	12	0.2500	3.75	24.0205	33.1131	33.1131	0.3
12	5.00	12	0.2500	3.75	24.0205	34.1234	34.1234	0.3
13	5.00	12	0.2500	3.75	24.0205	35.1337	35.1337	0.3
14	5.00	12	0.2500	3.75	24.0205	36.1440	36.1440	0.3
15	5.00	12	0.2500	3.75	24.0205	37.1543	37.1543	0.3
16	5.00	12	0.2500	3.75	24.0205	38.1646	38.1646	0.3
17	5.00	12	0.2500	3.75	24.0205	39.1749	39.1749	0.3
18	5.00	12	0.2500	3.75	24.0205	40.1852	40.1852	0.3
19	5.00	12	0.2500	3.75	24.0205	41.1955	41.1955	0.3
20	5.00	12	0.2500	3.75	24.0205	42.2058	42.2058	0.3
21	5.00	12	0.2500	3.75	24.0205	43.2161	43.2161	0.3
22	5.00	12	0.2500	3.75	24.0205	44.2264	44.2264	0.3
23	5.00	12	0.2500	3.75	24.0205	45.2367	45.2367	0.3
24	5.00	12	0.2500	3.75	24.0205	46.2470	46.2470	0.3
25	5.00	12	0.2500	3.75	24.0205	47.2573	47.2573	0.3
26	5.00	12	0.2500	3.75	24.0205	48.2676	48.2676	0.3
27	5.00	12	0.2500	3.75	24.0205	49.2779	49.2779	0.3
28	5.00	12	0.2500	3.75	24.0205	50.2882	50.2882	0.3
29	5.00	12	0.2500	3.75	24.0205	51.2985	51.2985	0.3
30	5.00	12	0.2500	3.75	24.0205	52.3088	52.3088	0.3
31	5.00	12	0.2500	3.75	24.0205	53.3191	53.3191	0.3
32	5.00	12	0.2500	3.75	24.0205	54.3294	54.3294	0.3
33	5.00	12	0.2500	3.75	24.0205	55.3397	55.3397	0.3
34	5.00	12	0.2500	3.75	24.0205	56.3500	56.3500	0.3
35	5.00	12	0.2500	3.75	24.0205	57.3603	57.3603	0.3
36	5.00	12	0.2500	3.75	24.0205	58.3706	58.3706	0.3
37	5.00	12	0.2500	3.75	24.0205	59.3809	59.3809	0.3
38	5.00	12	0.2500	3.75	24.0205	60.3912	60.3912	0.3
39	5.00	12	0.2500	3.75	24.0205	61.4015	61.4015	0.3
40	5.00	12	0.2500	3.75	24.0205	62.4118	62.4118	0.3
41	5.00	12	0.2500	3.75	24.0205	63.4221	63.4221	0.3
42	5.00	12	0.2500	3.75	24.0205	64.4324	64.4324	0.3
43	5.00	12	0.2500	3.75	24.0205	65.4427	65.4427	0.3
44	5.00	12	0.2500	3.75	24.0205	66.4530	66.4530	0.3
45	5.00	12	0.2500	3.75	24.0205	67.4633	67.4633	0.3
46	5.00	12	0.2500	3.75	24.0205	68.4736	68.4736	0.3
47	5.00	12	0.2500	3.75	24.0205	69.4839	69.4839	0.3
48	5.00	12	0.2500	3.75	24.0205	70.4942	70.4942	0.3
49	5.00	12	0.2500	3.75	24.0205	71.5045	71.5045	0.3
50	5.00	12	0.2500	3.75	24.0205	72.5148	72.5148	0.3
51	5.00	12	0.2500	3.75	24.0205	73.5251	73.5251	0.3
52	5.00	12	0.2500	3.75	24.0205	74.5354	74.5354	0.3
53	5.00	12	0.2500	3.75	24.0205	75.5457	75.5457	0.3
54	5.00	12	0.2500	3.75	24.0205	76.5560	76.5560	0.3
55	5.00	12	0.2500	3.75	24.0205	77.5663	77.5663	0.3
56	5.00	12	0.2500	3.75	24.0205	78.5766	78.5766	0.3
57	5.00	12	0.2500	3.75	24.0205	79.5869	79.5869	0.3
58	5.00	12	0.2500	3.75	24.0205	80.5972	80.5972	0.3
59	5.00	12	0.2500	3.75	24.0205	81.6075	81.6075	0.3
60	5.00	12	0.2500	3.75	24.0205	82.6178	82.6178	0.3
61	5.00	12	0.2500	3.75	24.0205	83.6281	83.6281	0.3
62	5.00	12	0.2500	3.75	24.0205	84.6384	84.6384	0.3
63	5.00	12	0.2500	3.75	24.0205	85.6487	85.6487	0.3
64	5.00	12	0.2500	3.75	24.0205	86.6590	86.6590	0.3
65	5.00	12	0.2500	3.75	24.0205	87.6693	87.6693	0.3
66	5.00	12	0.2500	3.75	24.0205	88.6796	88.6796	0.3
67	5.00	12	0.2500	3.75	24.0205	89.6899	89.6899	0.3
68	5.00	12	0.2500	3.75	24.0205	90.7002	90.7002	0.3
69	5.00	12	0.2500	3.75	24.0205	91.7105	91.7105	0.3
70	5.00	12	0.2500	3.75	24.0205	92.7208	92.7208	0.3
71	5.00	12	0.2500	3.75	24.0205	93.7311	93.7311	0.3
72	5.00	12	0.2500	3.75	24.0205	94.7414	94.7414	0.3
73	5.00	12	0.2500	3.75	24.0205	95.7517	95.7517	0.3
74	5.00	12	0.2500	3.75	24.0205	96.7620	96.7620	0.3
75	5.00	12	0.2500	3.75	24.0205	97.7723	97.7723	0.3
76	5.00	12	0.2500	3.75	24.0205	98.7826	98.7826	0.3
77	5.00	12	0.2500	3.75	24.0205	99.7929	99.7929	0.3
78	5.00	12	0.2500	3.75	24.0205	100.8032	100.8032	0.3
79	5.00	12	0.2500	3.75	24.0205	101.8135	101.8135	0.3
80	5.00	12	0.2500	3.75	24.0205	102.8238	102.8238	0.3
81	5.00	12	0.2500	3.75	24.0205	103.8341	103.8341	0.3
82	5.00	12	0.2500	3.75	24.0205	104.8444	104.8444	0.3
83	5.00	12	0.2500	3.75	24.0205	105.8547	105.8547	0.3
84	5.00	12	0.2500	3.75	24.0205	106.8650	106.8650	0.3
85	5.00	12	0.2500	3.75	24.0205	107.8753	107.8753	0.3
86	5.00	12	0.2500	3.75	24.0205	108.8856	108.8856	0.3
87	5.00	12	0.2500	3.75	24.0205	109.8959	109.8959	0.3
88	5.00	12	0.2500	3.75	24.0205	110.9062	110.9062	0.3
89	5.00	12	0.2500	3.75	24.0205	111.9165	111.9165	0.3
90	5.00	12	0.2500	3.75	24.0205	112.9268	112.9268	0.3
91	5.00	12	0.2500	3.75	24.0205	113.9371	113.9371	0.3
92	5.00	12	0.2500	3.75	24.0205	114.9474	114.9474	0.3
93	5.00	12	0.2500	3.75	24.0205	115.9577	115.9577	0.3
94	5.00	12	0.2500	3.75	24.0205	116.9680	116.9680	0.3
95	5.00	12	0.2500	3.75	24.0205	117.9783	117.9783	0.3
96	5.00	12	0.2500	3.75	24.0205	118.9886	118.9886	0.3
97	5.00	12	0.2500	3.75	24.0205	119.9989	119.9989	0.3
98	5.00	12	0.2500	3.75	24.0205	121.0092	121.0092	0.3
99	5.00	12	0.2500	3.75	24.0205	122.0195	122.0195	0.3
100	5.00	12	0.2500	3.75	24.0205	123.0298	123.0298	0.3



<p>Crown Castle 2000 Corporate Drive Canonsburg, PA 15317 The Pathway to Possible Phone: 724-416-2000 FAX:</p>		Job: BU 876320	
		Project:	App'd:
Client: Crown Castle	Drawn by: BRossmiller	Code: TIA-222-H	Scale: NTS
Date: 05/27/21	Path:	Dwg No. E-1	

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- Tower is located in New Haven County, Connecticut.
- Tower base elevation above sea level: 213.00 ft.
- Basic wind speed of 125 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Nominal ice thickness of 1.5000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification ✓ Use Code Stress Ratios ✓ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric	Distribute Leg Loads As Uniform Assume Legs Pinned ✓ Assume Rigid Index Plate ✓ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension ✓ Bypass Mast Stability Checks ✓ Use Azimuth Dish Coefficients ✓ Project Wind Area of Appurt. Autocalc Torque Arm Areas Add IBC .6D+W Combination ✓ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs	Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation ✓ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <div style="text-align: center; border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;">Poles</div> ✓ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	120.00-115.00	5.00	0.00	12	22.0000	23.0102	0.2500	1.0000	A607-60 (60 ksi)
L2	115.00-110.00	5.00	0.00	12	23.0102	24.0205	0.2500	1.0000	A607-60 (60 ksi)
L3	110.00-105.00	5.00	0.00	12	24.0205	25.0307	0.2500	1.0000	A607-60 (60 ksi)
L4	105.00-100.00	5.00	0.00	12	25.0307	26.0410	0.2500	1.0000	A607-60 (60 ksi)
L5	100.00-99.25	0.75	0.00	12	26.0410	26.1925	0.2500	1.0000	A607-60 (60 ksi)
L6	99.25-99.00	0.25	0.00	12	26.1925	26.2430	0.3625	1.4500	A607-60 (60 ksi)
L7	99.00-94.00	5.00	0.00	12	26.2430	27.2532	0.3563	1.4250	A607-60 (60 ksi)
L8	94.00-90.08	3.92	0.00	12	27.2532	28.0453	0.3500	1.4000	A607-60 (60 ksi)
L9	90.08-89.83	0.25	0.00	12	28.0453	28.0958	0.5125	2.0500	A607-60 (60 ksi)
L10	89.83-89.50	0.33	0.00	12	28.0958	28.1625	0.5125	2.0500	A607-60 (60 ksi)
L11	89.50-89.25	0.25	0.00	12	28.1625	28.2130	0.7250	2.9000	A607-60 (60 ksi)
L12	89.25-84.25	5.00	0.00	12	28.2130	29.2232	0.7000	2.8000	A607-60 (60 ksi)
L13	84.25-78.00	6.25	3.75	12	29.2232	30.4860	0.7000	2.8000	A607-60 (60 ksi)
L14	78.00-77.00	4.75	0.00	12	29.2283	30.1880	0.8625	3.4500	A607-60 (60 ksi)
L15	77.00-76.75	0.25	0.00	12	30.1880	30.2385	0.8625	3.4500	A607-60 (60 ksi)
L16	76.75-76.50	0.25	0.00	12	30.2385	30.2890	0.9625	3.8500	A607-60 (60 ksi)
L17	76.50-75.50	1.00	0.00	12	30.2890	30.4911	0.9625	3.8500	A607-60 (60 ksi)
L18	75.50-75.25	0.25	0.00	12	30.4911	30.5416	0.7625	3.0500	A607-60 (60 ksi)
L19	75.25-74.50	0.75	0.00	12	30.5416	30.6931	0.7625	3.0500	A607-60 (60 ksi)
L20	74.50-74.25	0.25	0.00	12	30.6931	30.7436	0.8375	3.3500	A607-60 (60 ksi)
L21	74.25-72.00	2.25	0.00	12	30.7436	31.1982	0.8250	3.3000	A607-60 (60 ksi)
L22	72.00-71.75	0.25	0.00	12	31.1982	31.2487	0.7625	3.0500	A607-60 (60 ksi)
L23	71.75-70.50	1.25	0.00	12	31.2487	31.5013	0.7625	3.0500	A607-60 (60 ksi)
L24	70.50-70.25	0.25	0.00	12	31.5013	31.5518	0.7875	3.1500	A607-60 (60 ksi)
L25	70.25-70.00	0.25	0.00	12	31.5518	31.6023	0.7875	3.1500	A607-60 (60 ksi)
L26	70.00-69.75	0.25	0.00	12	31.6023	31.6528	0.7250	2.9000	A607-60 (60 ksi)
L27	69.75-69.50	0.25	0.00	12	31.6528	31.7033	0.8750	3.5000	A607-60 (60 ksi)
L28	69.50-69.25	0.25	0.00	12	31.7033	31.7538	0.7500	3.0000	A607-60 (60 ksi)
L29	69.25-64.25	5.00	0.00	12	31.7538	32.7640	0.7375	2.9500	A607-60 (60 ksi)
L30	64.25-59.25	5.00	0.00	12	32.7640	33.7742	0.7125	2.8500	A607-60 (60 ksi)
L31	59.25-56.00	3.25	0.00	12	33.7742	34.4309	0.7125	2.8500	A607-60 (60 ksi)
L32	56.00-55.75	0.25	0.00	12	34.4309	34.4814	0.8125	3.2500	A607-60 (60 ksi)
L33	55.75-55.50	0.25	0.00	12	34.4814	34.5319	0.8125	3.2500	A607-60 (60 ksi)
L34	55.50-55.25	0.25	0.00	12	34.5319	34.5824	0.8875	3.5500	A607-60 (60 ksi)
L35	55.25-54.00	1.25	0.00	12	34.5824	34.8349	0.8750	3.5000	A607-60

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L36	54.00-53.75	0.25	0.00	12	34.8349	34.8854	0.7500	3.0000	(60 ksi) A607-60
L37	53.75-53.50	0.25	0.00	12	34.8854	34.9359	0.7375	2.9500	(60 ksi) A607-60
L38	53.50-53.25	0.25	0.00	12	34.9359	34.9865	0.6625	2.6500	(60 ksi) A607-60
L39	53.25-53.00	0.25	0.00	12	34.9865	35.0370	0.6000	2.4000	(60 ksi) A607-60
L40	53.00-48.00	5.00	0.00	12	35.0370	36.0472	0.5875	2.3500	(60 ksi) A607-60
L41	48.00-39.75	8.25	4.75	12	36.0472	37.7140	0.5875	2.3500	(60 ksi) A607-60
L42	39.75-38.75	5.75	0.00	12	36.1293	37.2910	0.6625	2.6500	(60 ksi) A607-60
L43	38.75-34.75	4.00	0.00	12	37.2910	38.0992	0.6625	2.6500	(60 ksi) A607-60
L44	34.75-34.50	0.25	0.00	12	38.0992	38.1497	0.8250	3.3000	(60 ksi) A607-60
L45	34.50-33.75	0.75	0.00	12	38.1497	38.3012	0.8250	3.3000	(60 ksi) A607-60
L46	33.75-33.50	0.25	0.00	12	38.3012	38.3517	0.6250	2.5000	(60 ksi) A607-60
L47	33.50-28.50	5.00	0.00	12	38.3517	39.3619	0.6125	2.4500	(60 ksi) A607-60
L48	28.50-24.00	4.50	0.00	12	39.3619	40.2711	0.6625	2.6500	(60 ksi) A607-60
L49	24.00-23.75	0.25	0.00	12	40.2711	40.3216	0.7000	2.8000	(60 ksi) A607-60
L50	23.75-18.75	5.00	0.00	12	40.3216	41.3318	0.6875	2.7500	(60 ksi) A607-60
L51	18.75-14.25	4.50	0.00	12	41.3318	42.2410	0.6750	2.7000	(60 ksi) A607-60
L52	14.25-14.00	0.25	0.00	12	42.2410	42.2915	0.7750	3.1000	(60 ksi) A607-60
L53	14.00-9.00	5.00	0.00	12	42.2915	43.3017	0.7625	3.0500	(60 ksi) A607-60
L54	9.00-5.00	4.00	0.00	12	43.3017	44.1098	0.7500	3.0000	(60 ksi) A607-60
L55	5.00-4.75	0.25	0.00	12	44.1098	44.1603	0.9125	3.6500	(60 ksi) A607-60
L56	4.75-4.50	0.25	0.00	12	44.1603	44.2108	0.8000	3.2000	(60 ksi) A607-60
L57	4.50-0.00	4.50		12	44.2108	45.1200	0.7875	3.1500	(60 ksi) A607-60

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	22.6879	17.5087	1057.2060	7.7865	11.3960	92.7699	2142.1860	8.6173	5.2260	20.904
L2	23.7338	18.3220	1211.4688	8.1482	11.9193	101.6392	2454.7642	9.0175	5.4967	21.987
L3	24.7796	19.1352	1380.0520	8.5098	12.4426	110.9134	2796.3596	9.4178	5.7675	23.07
L4	25.8255	19.9485	1563.5914	8.8715	12.9659	120.5925	3168.2601	9.8180	6.0382	24.153
L5	26.8714	20.7617	1762.7225	9.2332	13.4892	130.6765	3571.7537	10.2183	6.3090	25.236
L6	27.0283	20.8837	1793.9763	9.2874	13.5677	132.2240	3635.0824	10.2783	6.3496	25.398
L7	27.0431	29.6953	2539.9741	9.2675	13.5939	186.8470	5146.6761	14.6151	6.0784	17.062
L8	28.0890	30.8542	2849.0997	9.6291	14.1172	201.8179	5773.0484	15.1855	6.3491	17.822
L8	28.0912	30.3199	2801.0672	9.6314	14.1172	198.4155	5675.7215	14.9226	6.3659	18.188

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L9	28.9111	31.2126	3055.8107	9.9149	14.5274	210.3474	6191.9009	15.3619	6.5781	18.795
	28.8538	45.4359	4396.2783	9.8567	14.5274	302.6188	8908.0517	22.3622	6.1426	11.986
	28.9061	45.5193	4420.5191	9.8748	14.5536	303.7403	8957.1702	22.4032	6.1562	12.012
L10	28.9061	45.5193	4420.5191	9.8748	14.5536	303.7403	8957.1702	22.4032	6.1562	12.012
	28.9751	45.6293	4452.6528	9.8987	14.5882	305.2240	9022.2818	22.4574	6.1740	12.047
L11	28.9002	64.0527	6154.7606	9.8226	14.5882	421.9014	12471.213	31.5248	5.6045	7.73
	28.9525	64.1707	6188.8157	9.8407	14.6143	423.4763	12540.218	31.5828	5.6181	7.749
L12	28.9613	62.0142	5991.7268	9.8496	14.6143	409.9902	12140.862	30.5215	5.6851	8.122
	30.0072	64.2913	6676.2823	10.2113	15.1376	441.0391	13527.958	31.6422	5.9558	8.508
L13	30.0072	64.2913	6676.2823	10.2113	15.1376	441.0391	13527.958	31.6422	5.9558	8.508
	31.3145	67.1376	7602.8499	10.6634	15.7917	481.4445	15405.435	33.0431	6.2942	8.992
L14	30.7395	78.7790	8090.7168	10.1550	15.1403	534.3839	16393.985	38.7726	5.5217	6.402
	30.9487	81.4443	8940.0035	10.4985	15.6374	571.7069	18114.870	40.0844	5.7789	6.7
L15	30.9487	81.4443	8940.0035	10.4985	15.6374	571.7069	18114.870	40.0844	5.7789	6.7
	31.0010	81.5846	8986.2777	10.5166	15.6636	573.7062	18208.634	40.1534	5.7924	6.716
L16	30.9657	90.7337	9926.1015	10.4808	15.6636	633.7069	20112.972	44.6564	5.5244	5.74
	31.0180	90.8903	9977.5667	10.4989	15.6897	635.9303	20217.255	44.7334	5.5380	5.754
L17	31.0180	90.8903	9977.5667	10.4989	15.6897	635.9303	20217.255	44.7334	5.5380	5.754
	31.2271	91.5164	10185.206	10.5712	15.7944	644.8629	20637.990	45.0416	5.5921	5.81
L18	31.2977	72.9911	8233.8656	10.6428	15.7944	521.3163	16684.043	35.9240	6.1281	8.037
	31.3500	73.1151	8275.9059	10.6609	15.8205	523.1115	16769.229	35.9850	6.1416	8.055
L19	31.3500	73.1151	8275.9059	10.6609	15.8205	523.1115	16769.229	35.9850	6.1416	8.055
	31.5069	73.4871	8402.8850	10.7152	15.8990	528.5155	17026.523	36.1681	6.1823	8.108
L20	31.4804	80.5131	9160.1910	10.6883	15.8990	576.1477	18561.030	39.6261	5.9813	7.142
	31.5327	80.6493	9206.7616	10.7064	15.9252	578.1255	18655.395	39.6931	5.9948	7.158
L21	31.5371	79.4788	9080.7242	10.7109	15.9252	570.2112	18400.009	39.1171	6.0283	7.307
	32.0077	80.6864	9500.9688	10.8736	16.1607	587.9067	19251.538	39.7114	6.1501	7.455
L22	32.0298	74.7273	8835.5182	10.8960	16.1607	546.7296	17903.155	36.7785	6.3176	8.285
	32.0821	74.8513	8879.5805	10.9141	16.1868	548.5680	17992.437	36.8395	6.3312	8.303
L23	32.0821	74.8513	8879.5805	10.9141	16.1868	548.5680	17992.437	36.8395	6.3312	8.303
	32.3435	75.4714	9102.0909	11.0045	16.3177	557.8062	18443.303	37.1447	6.3988	8.392
L24	32.3347	77.8824	9377.6023	10.9955	16.3177	574.6904	19001.564	38.3314	6.3318	8.04
	32.3870	78.0105	9423.9439	11.0136	16.3438	576.6059	19095.465	38.3944	6.3454	8.058
L25	32.3870	78.0105	9423.9439	11.0136	16.3438	576.6059	19095.465	38.3944	6.3454	8.058
	32.4393	78.1386	9470.4380	11.0317	16.3700	578.5245	19189.674	38.4574	6.3589	8.075
L26	32.4613	72.0830	8771.9753	11.0541	16.3700	535.8572	17774.400	35.4771	6.5264	9.002
	32.5136	72.2010	8815.0942	11.0722	16.3962	537.6319	17861.770	35.5351	6.5400	9.021

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L27	32.4607	86.7165	10484.8600	11.0185	16.3962	639.4708	21245.1690	42.6792	6.1380	7.015
	32.5130	86.8588	10536.5655	11.0365	16.4223	641.6005	21349.9382	42.7492	6.1515	7.03
L28	32.5571	74.7522	9141.6464	11.0813	16.4223	556.6600	18523.4540	36.7908	6.4865	8.649
	32.6094	74.8742	9186.4718	11.0994	16.4485	558.4998	18614.2825	36.8508	6.5000	8.667
L29	32.6138	73.6560	9044.2945	11.1038	16.4485	549.8560	18326.1927	36.2512	6.5335	8.859
	33.6596	76.0550	9957.1062	11.4655	16.9718	586.6866	20175.7967	37.4319	6.8043	9.226
L30	33.6685	73.5342	9642.1220	11.4744	16.9718	568.1273	19537.5533	36.1913	6.8713	9.644
	34.7143	75.8519	10582.8602	11.8361	17.4950	604.9061	21443.7440	37.3320	7.1420	10.024
L31	34.7143	75.8519	10582.8602	11.8361	17.4950	604.9061	21443.7440	37.3320	7.1420	10.024
	35.3941	77.3583	11226.0164	12.0712	17.8352	629.4310	22746.9527	38.0734	7.3180	10.271
L32	35.3588	87.9540	12688.0363	12.0354	17.8352	711.4050	25709.4015	43.2883	7.0500	8.677
	35.4111	88.0862	12745.3118	12.0535	17.8613	713.5695	25825.4572	43.3533	7.0635	8.694
L33	35.4111	88.0862	12745.3118	12.0535	17.8613	713.5695	25825.4572	43.3533	7.0635	8.694
	35.4634	88.2183	12802.7595	12.0715	17.8875	715.7374	25941.8616	43.4184	7.0770	8.71
L34	35.4369	96.1472	13891.4450	12.0447	17.8875	776.6003	28147.8337	47.3207	6.8760	7.748
	35.4892	96.2915	13954.1043	12.0628	17.9137	778.9639	28274.7984	47.3918	6.8896	7.763
L35	35.4936	94.9705	13772.8845	12.0672	17.9137	768.8476	27907.5980	46.7416	6.9231	7.912
	35.7551	95.6821	14084.7854	12.1577	18.0445	780.5586	28539.5938	47.0918	6.9908	7.989
L36	35.7992	82.3151	12206.4761	12.2024	18.0445	676.4654	24733.6299	40.5130	7.3258	9.768
	35.8515	82.4371	12260.8224	12.2205	18.0707	678.4934	24843.7502	40.5730	7.3393	9.786
L37	35.8559	81.0928	12069.7250	12.2250	18.0707	667.9184	24456.5351	39.9114	7.3728	9.997
	35.9082	81.2128	12123.3632	12.2430	18.0968	669.9167	24565.2206	39.9705	7.3863	10.015
L38	35.9347	73.1138	10962.2871	12.2699	18.0968	605.7576	22212.5658	35.9844	7.5873	11.453
	35.9869	73.2216	11010.8251	12.2880	18.1230	607.5613	22310.9169	36.0374	7.6009	11.473
L39	36.0090	66.4346	10026.6413	12.3104	18.1230	553.2555	20316.6936	32.6971	7.7684	12.947
	36.0613	66.5322	10070.8904	12.3284	18.1492	554.8960	20406.3543	32.7451	7.7819	12.97
L40	36.0657	65.1698	9871.8223	12.3329	18.1492	543.9275	20002.9883	32.0746	7.8154	13.303
	37.1115	67.0808	10765.9848	12.6946	18.6724	576.5710	21814.8040	33.0151	8.0861	13.764
L41	37.1115	67.0808	10765.9848	12.6946	18.6724	576.5710	21814.8040	33.0151	8.0861	13.764
	38.8372	70.2341	12356.6777	13.2913	19.5359	632.5129	25037.9792	34.5671	8.5329	14.524
L42	38.1636	75.6596	12147.7009	12.6971	18.7150	649.0896	24614.5354	37.2373	7.9072	11.935
	38.3728	78.1378	13380.9250	13.1130	19.3168	692.7109	27113.3819	38.4571	8.2185	12.405
L43	38.3728	78.1378	13380.9250	13.1130	19.3168	692.7109	27113.3819	38.4571	8.2185	12.405
	39.2095	79.8618	14286.2974	13.4023	19.7354	723.8929	28947.9117	39.3055	8.4351	12.732
L44	39.1521	99.0189	17559.8202	13.3442	19.7354	889.7637	35580.9564	48.7341	7.9996	9.696

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
	39.2044	99.1530	17631.3026	13.3622	19.7615	892.2029	35725.7991	48.8001	8.0131	9.713
L45	39.2044	99.1530	17631.3026	13.3622	19.7615	892.2029	35725.7991	48.8001	8.0131	9.713
	39.3613	99.5556	17846.9103	13.4165	19.8400	899.5404	36162.6788	48.9982	8.0537	9.762
L46	39.4319	75.8234	13738.0073	13.4881	19.8400	692.4388	27836.9273	37.3180	8.5897	13.744
	39.4842	75.9250	13793.3343	13.5062	19.8662	694.3118	27949.0348	37.3680	8.6033	13.765
L47	39.4886	74.4312	13530.9083	13.5106	19.8662	681.1022	27417.2886	36.6328	8.6368	14.101
	40.5344	76.4235	14646.8241	13.8723	20.3895	718.3522	29678.4366	37.6133	8.9075	14.543
L48	40.5168	82.5555	15781.2357	13.8544	20.3895	773.9894	31977.0620	40.6313	8.7735	13.243
	41.4580	84.4950	16919.8231	14.1799	20.8604	811.0968	34284.1489	41.5859	9.0172	13.611
L49	41.4448	89.1932	17826.8196	14.1664	20.8604	854.5761	36121.9695	43.8982	8.9167	12.738
	41.4971	89.3071	17895.1698	14.1845	20.8866	856.7780	36260.4657	43.9542	8.9302	12.757
L50	41.5015	87.7400	17592.2530	14.1890	20.8866	842.2751	35646.6740	43.1830	8.9637	13.038
	42.5473	89.9763	18971.9986	14.5507	21.4099	886.1335	38442.4128	44.2836	9.2344	13.432
L51	42.5517	88.3675	18644.2445	14.5551	21.4099	870.8249	37778.2941	43.4918	9.2679	13.73
	43.4929	90.3436	19923.1961	14.8806	21.8808	910.5326	40369.7967	44.4644	9.5116	14.091
L52	43.4577	103.4783	22710.0801	14.8448	21.8808	1037.8991	46016.7793	50.9289	9.2436	11.927
	43.5100	103.6043	22793.1696	14.8629	21.9070	1040.4524	46185.1411	50.9909	9.2571	11.945
L53	43.5144	101.9640	22445.7999	14.8674	21.9070	1024.5958	45481.2759	50.1836	9.2906	12.184
	44.5602	104.4443	24123.9455	15.2290	22.4303	1075.5090	48881.6539	51.4043	9.5613	12.539
L54	44.5646	102.7623	23749.3947	15.2335	22.4303	1058.8106	48122.7125	50.5765	9.5948	12.793
	45.4013	104.7139	25128.4208	15.5228	22.8489	1099.7659	50916.9933	51.5370	9.8114	13.082
L55	45.3439	126.9245	30230.4634	15.4646	22.8489	1323.0610	61255.1147	62.4684	9.3759	10.275
	45.3962	127.0729	30336.6316	15.4827	22.8750	1326.1889	61470.2403	62.5414	9.3895	10.29
L56	45.4359	111.6962	26804.5947	15.5230	22.8750	1171.7832	54313.3759	54.9735	9.6910	12.114
	45.4882	111.8263	26898.3752	15.5411	22.9012	1174.5395	54503.4007	55.0375	9.7045	12.131
L57	45.4926	110.1107	26500.9675	15.5456	22.9012	1157.1864	53698.1449	54.1931	9.7380	12.366
	46.4339	112.4161	28200.6457	15.8710	23.3722	1206.5913	57142.1538	55.3278	9.9817	12.675

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A _r	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
L1 120.00-115.00				1	1	1			
L2 115.00-110.00				1	1	1			
L3 110.00-105.00				1	1	1			
L4 105.00-100.00				1	1	1			

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_r	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontal in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
L5 100.00-99.25				1	1	1			
L6 99.25-99.00				1	1	1.18991			
L7 99.00-94.00				1	1	1.19138			
L8 94.00-90.08				1	1	1.19813			
L9 90.08-89.83				1	1	1.02045			
L10 89.83-89.50				1	1	1.01917			
L11 89.50-89.25				1	1	0.912595			
L12 89.25-84.25				1	1	0.923531			
L13 84.25-78.00				1	1	0.913676			
L14 78.00-77.00				1	1	0.996207			
L15 77.00-76.75				1	1	0.995117			
L16 76.75-76.50				1	1	0.948882			
L17 76.50-75.50				1	1	0.944612			
L18 75.50-75.25				1	1	1.04608			
L19 75.25-74.50				1	1	1.04286			
L20 74.50-74.25				1	1	0.888787			
L21 74.25-72.00				1	1	0.894048			
L22 72.00-71.75				1	1	1.07313			
L23 71.75-70.50				1	1	1.06768			
L24 70.50-70.25				1	1	1.09135			
L25 70.25-70.00				1	1	1.09021			
L26 70.00-69.75				1	1	1.11122			
L27 69.75-69.50				1	1	0.981926			
L28 69.50-69.25				1	1	0.979276			
L29 69.25-64.25				1	1	0.977438			
L30 64.25-59.25				1	1	0.993457			
L31 59.25-56.00				1	1	0.982651			
L32 56.00-55.75				1	1	1.01703			
L33 55.75-55.50				1	1	1.01608			
L34 55.50-55.25				1	1	0.978222			
L35 55.25-54.00				1	1	0.987109			
L36 54.00-53.75				1	1	1.03699			
L37 53.75-53.50				1	1	1.05325			

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_r	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
L38 53.50-53.25				1	1	1.10735			
L39 53.25-53.00				1	1	1.09715			
L40 53.00-48.00				1	1	1.10333			
L41 48.00-39.75				1	1	1.09216			
L42 39.75-38.75				1	1	0.976499			
L43 38.75-34.75				1	1	0.967639			
L44 34.75-34.50				1	1	0.981987			
L45 34.50-33.75				1	1	0.979855			
L46 33.75-33.50				1	1	1.02183			
L47 33.50-28.50				1	1	1.03112			
L48 28.50-24.00				1	1	0.945617			
L49 24.00-23.75				1	1	0.949621			
L50 23.75-18.75				1	1	0.956115			
L51 18.75-14.25				1	1	0.964379			
L52 14.25-14.00				1	1	0.954431			
L53 14.00-9.00				1	1	0.958435			
L54 9.00-5.00				1	1	0.965286			
L55 5.00-4.75				1	1	0.89874			
L56 4.75-4.50				1	1	0.977045			
L57 4.50-0.00				1	1	0.981684			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
Safety Line 3/8	C	No	Surface Ar (CaAa)	120.00 - 0.00	1	1	0.250 0.250	0.3750		0.22
86										
CU12PSM9P8XXX(1-3/8)	B	No	Surface Ar (CaAa)	86.00 - 0.00	1	1	0.000 0.000	1.4110		1.66
122										
1266A(1/8)	C	No	Surface Ar (CaAa)	120.00 - 0.00	1	1	-0.250 -0.250	0.1430		0.01
7983A(ELLIPTICAL)	C	No	Surface Ar (CaAa)	120.00 - 0.00	3	3	-0.250 -0.250	0.5730		0.08
3" Flexible Conduit	C	No	Surface Ar (CaAa)	120.00 - 0.00	2	2	-0.250 -0.250	3.0000		1.04
HB114-1-0813U4-M5J(1-1/4)	C	No	Surface Ar (CaAa)	120.00 - 0.00	4	4	-0.250 -0.250	1.5400		1.20
113										
LDF7-50A(1-5/8)	A	No	Surface Ar (CaAa)	113.00 - 0.00	8	6	0.250 0.250	1.9800		0.82
105										
MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	B	No	Surface Ar (CaAa)	105.00 - 0.00	1	1	-0.250 -0.250	1.6250		1.07

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
HCS 6X12 6AWG(1-3/8) ***Mods*** *Mod 1613579*	B	No	Surface Ar (CaAa)	105.00 - 0.00	3	3	-0.250 -0.250	1.3800		1.70
C6x10.5	A	No	Surface Af (CaAa)	56.00 - 7.67	1	1	0.000 0.000	6.0000	16.0600	10.50
C6x10.5	B	No	Surface Af (CaAa)	56.00 - 8.00	1	1	-0.250 -0.250	6.0000	16.0600	10.50
C6x10.5	B	No	Surface Af (CaAa)	56.00 - 0.00	1	1	0.500 0.500	6.0000	16.0600	10.50
C6x10.5	C	No	Surface Af (CaAa)	56.00 - 0.00	1	1	0.500 0.500	6.0000	16.0600	10.50
Mod 2460630										
(Area) Aero MP3-04 (H)	A	No	Surface Af (CaAa)	25.42 - 0.00	1	1	-0.250 -0.250	4.7800	12.7800	0.00
(Area) Aero MP3-04 (H)	A	No	Surface Af (CaAa)	25.42 - 0.00	1	1	0.250 0.250	4.7800	12.7800	0.00
(Area) Aero MP3-04 (H)	B	No	Surface Af (CaAa)	25.42 - 0.00	1	1	0.250 0.250	4.7800	12.7800	0.00
(Area) Aero MP3-04 (H)	C	No	Surface Af (CaAa)	25.42 - 0.00	1	1	-0.250 -0.250	4.7800	12.7800	0.00
Mod 3338935										
PL 1 x 5	A	No	Surface Af (CaAa)	37.00 - 2.50	1	1	0.500 0.500	5.0000	12.0000	0.00
PL 1 x 5	B	No	Surface Af (CaAa)	37.00 - 2.50	1	1	0.000 0.000	5.0000	12.0000	0.00
PL 1 x 5	C	No	Surface Af (CaAa)	37.00 - 2.50	1	1	0.000 0.000	5.0000	12.0000	0.00
PL 1 x 5	C	No	Surface Af (CaAa)	37.00 - 2.50	1	1	0.500 0.500	5.0000	12.0000	0.00
*										
PL 1 x 5	A	No	Surface Af (CaAa)	72.00 - 31.50	1	1	0.500 0.500	5.0000	12.0000	0.00
PL 1 x 5	B	No	Surface Af (CaAa)	72.00 - 31.50	1	1	0.000 0.000	5.0000	12.0000	0.00
PL 1 x 5	C	No	Surface Af (CaAa)	72.00 - 31.50	1	1	0.000 0.000	5.0000	12.0000	0.00
PL 1 x 5	C	No	Surface Af (CaAa)	72.00 - 31.50	1	1	0.500 0.500	5.0000	12.0000	0.00
Mod 3349207										
(Area) Aero MP3-03 (H)	A	No	Surface Af (CaAa)	15.42 - 0.00	1	1	0.500 0.500	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	B	No	Surface Af (CaAa)	15.42 - 0.00	1	1	0.000 0.000	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	C	No	Surface Af (CaAa)	15.42 - 0.00	1	1	0.000 0.000	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	C	No	Surface Af (CaAa)	15.42 - 0.00	1	1	0.500 0.500	4.0600	11.2600	0.00
*										
(Area) Aero MP3-03 (H)	A	No	Surface Af (CaAa)	45.42 - 25.42	1	1	-0.250 -0.250	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	A	No	Surface Af (CaAa)	45.42 - 25.42	1	1	0.250 0.250	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	B	No	Surface Af (CaAa)	45.42 - 25.42	1	1	0.250 0.250	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	C	No	Surface Af (CaAa)	45.42 - 25.42	1	1	-0.250 -0.250	4.0600	11.2600	0.00
Mod 4961357										
(Area) CCI-65FP-045100 (H)	A	No	Surface Af (CaAa)	72.00 - 52.00	1	1	-0.250 -0.250	4.5000	11.0000	0.00
(Area) CCI-65FP-045100 (H)	A	No	Surface Af (CaAa)	72.00 - 52.00	1	1	0.250 0.250	4.5000	11.0000	0.00
(Area) CCI-65FP-045100 (H)	B	No	Surface Af (CaAa)	72.00 - 52.00	1	1	0.250 0.250	4.5000	11.0000	0.00
PMI 5760332										
(Area) CCI-65FP-065125 (H)	C	No	Surface Af (CaAa)	74.75 - 50.50	1	1	-0.250 -0.250	6.5000	15.5000	0.00
Mod 4961357										

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
(Area) CCI-65FP-060100 (H)	A	No	Surface Af (CaAa)	92.00 - 67.00	1	1	0.000	6.0000	14.0000	0.00
(Area) CCI-65FP-060100 (H)	C	No	Surface Af (CaAa)	92.00 - 67.00	1	1	0.250	6.0000	14.0000	0.00
* (Area) CCI-65FP-045100 (H)	A	No	Surface Af (CaAa)	92.08 - 68.00	1	1	0.250	4.5000	11.0000	0.00
(Area) CCI-65FP-045100 (H)	B	No	Surface Af (CaAa)	92.08 - 68.00	1	1	0.250	4.5000	11.0000	0.00
Mod 5873963 (Area) CCI-65FP-045100 (H)	A	No	Surface Af (CaAa)	57.50 - 42.50	1	1	0.500	4.5000	11.0000	0.00
(Area) CCI-65FP-045100 (H)	B	No	Surface Af (CaAa)	57.50 - 42.50	1	1	0.000	4.5000	11.0000	0.00
(Area) CCI-65FP-045100 (H)	C	No	Surface Af (CaAa)	57.50 - 42.50	1	1	-0.250	4.5000	11.0000	0.00
(Area) CCI-65FP-045100 (H)	C	No	Surface Af (CaAa)	57.25 - 42.25	1	1	0.500	4.5000	11.0000	0.00
* PL 1.25x4	B	No	Surface Af (CaAa)	100.75 - 74.00	1	1	0.000	4.0000	10.5000	0.00
PL 1.25x4	C	No	Surface Af (CaAa)	100.75 - 74.00	1	1	0.500	4.0000	10.5000	0.00
PL 1.25x4	C	No	Surface Af (CaAa)	100.75 - 73.00	1	1	-0.250	4.0000	10.5000	0.00
* PL 1.25x4	A	No	Surface Af (CaAa)	80.00 - 68.50	1	1	-0.250	4.0000	10.5000	0.00
PL 1.25x4	A	No	Surface Af (CaAa)	78.25 - 68.25	1	1	0.500	4.0000	10.5000	0.00
PL 1.25x4	B	No	Surface Af (CaAa)	80.00 - 68.25	1	1	-0.250	4.0000	10.5000	0.00
PL 1.25x4	B	No	Surface Af (CaAa)	80.00 - 68.25	1	1	0.500	4.0000	10.5000	0.00

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		CAAA ft ² /ft	Weight plf
9207(5/16)	C	No	No	Inside Pole	120.00 - 0.00	6	No Ice	0.00	0.60
							1/2" Ice	0.00	0.60
							1" Ice	0.00	0.60
							2" Ice	0.00	0.60
96 LDF6-50A(1 1/4")	C	No	No	Inside Pole	96.00 - 0.00	12	No Ice	0.00	0.66
							1/2" Ice	0.00	0.66
							1" Ice	0.00	0.66
							2" Ice	0.00	0.66
FB-L98B-034-XXX(3/8)	C	No	No	Inside Pole	96.00 - 0.00	3	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	96.00 - 0.00	6	No Ice	0.00	0.58
							1/2" Ice	0.00	0.58
							1" Ice	0.00	0.58
							2" Ice	0.00	0.58
2" Flexible Conduit	C	No	No	Inside Pole	96.00 - 0.00	2	No Ice	0.00	0.34
							1/2" Ice	0.00	0.34
							1" Ice	0.00	0.34
							2" Ice	0.00	0.34
82 LDF5-50A(7/8)	C	No	No	Inside Pole	82.00 - 0.00	12	No Ice	0.00	0.33

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _{AA} ft ² /ft	Weight plf
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33
75							No Ice	0.00	0.15
LDF4-50A(1/2)	C	No	No	Inside Pole	75.00 - 0.00	1	1/2" Ice	0.00	0.15
							1" Ice	0.00	0.15
							2" Ice	0.00	0.15
Mods									

Feed Line/Linear Appurtenances Section Areas

Tower Section n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight K
L1	120.00-115.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	7.199	0.000	0.05
L2	115.00-110.00	A	0.000	0.000	3.564	0.000	0.02
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	7.199	0.000	0.05
L3	110.00-105.00	A	0.000	0.000	5.940	0.000	0.03
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	7.199	0.000	0.05
L4	105.00-100.00	A	0.000	0.000	5.940	0.000	0.03
		B	0.000	0.000	3.382	0.000	0.03
		C	0.000	0.000	8.198	0.000	0.05
L5	100.00-99.25	A	0.000	0.000	0.891	0.000	0.00
		B	0.000	0.000	0.932	0.000	0.00
		C	0.000	0.000	2.080	0.000	0.01
L6	99.25-99.00	A	0.000	0.000	0.297	0.000	0.00
		B	0.000	0.000	0.311	0.000	0.00
		C	0.000	0.000	0.693	0.000	0.00
L7	99.00-94.00	A	0.000	0.000	5.940	0.000	0.03
		B	0.000	0.000	6.216	0.000	0.03
		C	0.000	0.000	13.865	0.000	0.08
L8	94.00-90.08	A	0.000	0.000	8.077	0.000	0.03
		B	0.000	0.000	6.373	0.000	0.02
		C	0.000	0.000	12.790	0.000	0.09
L9	90.08-89.83	A	0.000	0.000	0.735	0.000	0.00
		B	0.000	0.000	0.498	0.000	0.00
		C	0.000	0.000	0.943	0.000	0.01
L10	89.83-89.50	A	0.000	0.000	0.970	0.000	0.00
		B	0.000	0.000	0.658	0.000	0.00
		C	0.000	0.000	1.245	0.000	0.01
L11	89.50-89.25	A	0.000	0.000	0.735	0.000	0.00
		B	0.000	0.000	0.498	0.000	0.00
		C	0.000	0.000	0.943	0.000	0.01
L12	89.25-84.25	A	0.000	0.000	14.690	0.000	0.03
		B	0.000	0.000	10.213	0.000	0.03
		C	0.000	0.000	18.865	0.000	0.12
L13	84.25-78.00	A	0.000	0.000	19.863	0.000	0.04
		B	0.000	0.000	16.006	0.000	0.05
		C	0.000	0.000	23.581	0.000	0.16
L14	78.00-77.00	A	0.000	0.000	4.271	0.000	0.01
		B	0.000	0.000	3.468	0.000	0.01
		C	0.000	0.000	3.773	0.000	0.03
L15	77.00-76.75	A	0.000	0.000	1.068	0.000	0.00
		B	0.000	0.000	0.867	0.000	0.00
		C	0.000	0.000	0.943	0.000	0.01
L16	76.75-76.50	A	0.000	0.000	1.068	0.000	0.00
		B	0.000	0.000	0.867	0.000	0.00
		C	0.000	0.000	0.867	0.000	0.00

Tower Section n	Tower Elevation ft	Face	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight K
			ft ²	ft ²	ft ²	ft ²	
L17	76.50-75.50	C	0.000	0.000	0.943	0.000	0.01
		A	0.000	0.000	4.271	0.000	0.01
		B	0.000	0.000	3.468	0.000	0.01
L18	75.50-75.25	C	0.000	0.000	3.773	0.000	0.03
		A	0.000	0.000	1.068	0.000	0.00
		B	0.000	0.000	0.867	0.000	0.00
L19	75.25-74.50	C	0.000	0.000	0.943	0.000	0.01
		A	0.000	0.000	3.204	0.000	0.00
		B	0.000	0.000	2.601	0.000	0.01
L20	74.50-74.25	C	0.000	0.000	3.101	0.000	0.02
		A	0.000	0.000	1.068	0.000	0.00
		B	0.000	0.000	0.867	0.000	0.00
L21	74.25-72.00	C	0.000	0.000	1.214	0.000	0.01
		A	0.000	0.000	9.611	0.000	0.01
		B	0.000	0.000	6.469	0.000	0.02
L22	72.00-71.75	C	0.000	0.000	8.927	0.000	0.06
		A	0.000	0.000	1.651	0.000	0.00
		B	0.000	0.000	1.096	0.000	0.00
L23	71.75-70.50	C	0.000	0.000	1.297	0.000	0.01
		A	0.000	0.000	8.256	0.000	0.01
		B	0.000	0.000	5.480	0.000	0.01
L24	70.50-70.25	C	0.000	0.000	6.487	0.000	0.03
		A	0.000	0.000	1.651	0.000	0.00
		B	0.000	0.000	1.096	0.000	0.00
L25	70.25-70.00	C	0.000	0.000	1.297	0.000	0.01
		A	0.000	0.000	1.651	0.000	0.00
		B	0.000	0.000	1.096	0.000	0.00
L26	70.00-69.75	C	0.000	0.000	1.297	0.000	0.01
		A	0.000	0.000	1.651	0.000	0.00
		B	0.000	0.000	1.096	0.000	0.00
L27	69.75-69.50	C	0.000	0.000	1.297	0.000	0.01
		A	0.000	0.000	1.651	0.000	0.00
		B	0.000	0.000	1.096	0.000	0.00
L28	69.50-69.25	C	0.000	0.000	1.297	0.000	0.01
		A	0.000	0.000	1.651	0.000	0.00
		B	0.000	0.000	1.096	0.000	0.00
L29	69.25-64.25	C	0.000	0.000	1.297	0.000	0.01
		A	0.000	0.000	21.961	0.000	0.03
		B	0.000	0.000	13.776	0.000	0.04
L30	64.25-59.25	C	0.000	0.000	23.198	0.000	0.14
		A	0.000	0.000	17.607	0.000	0.03
		B	0.000	0.000	11.505	0.000	0.04
L31	59.25-56.00	C	0.000	0.000	20.948	0.000	0.14
		A	0.000	0.000	12.569	0.000	0.02
		B	0.000	0.000	8.603	0.000	0.03
L32	56.00-55.75	C	0.000	0.000	15.679	0.000	0.09
		A	0.000	0.000	1.318	0.000	0.00
		B	0.000	0.000	1.263	0.000	0.01
L33	55.75-55.50	C	0.000	0.000	1.672	0.000	0.01
		A	0.000	0.000	1.318	0.000	0.00
		B	0.000	0.000	1.263	0.000	0.01
L34	55.50-55.25	C	0.000	0.000	1.672	0.000	0.01
		A	0.000	0.000	1.318	0.000	0.00
		B	0.000	0.000	1.263	0.000	0.01
L35	55.25-54.00	C	0.000	0.000	1.672	0.000	0.01
		A	0.000	0.000	6.589	0.000	0.02
		B	0.000	0.000	6.314	0.000	0.04
L36	54.00-53.75	C	0.000	0.000	8.362	0.000	0.05
		A	0.000	0.000	1.318	0.000	0.00
		B	0.000	0.000	1.263	0.000	0.01
L37	53.75-53.50	C	0.000	0.000	1.672	0.000	0.01
		A	0.000	0.000	1.318	0.000	0.00
		B	0.000	0.000	1.263	0.000	0.01
L38	53.50-53.25	C	0.000	0.000	1.672	0.000	0.01
		A	0.000	0.000	1.318	0.000	0.00
		B	0.000	0.000	1.263	0.000	0.01
L39	53.25-53.00	C	0.000	0.000	1.672	0.000	0.01
		A	0.000	0.000	1.318	0.000	0.00
		B	0.000	0.000	1.263	0.000	0.01

Tower Section	Tower Elevation	Face	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight
n	ft		ft ²	ft ²	ft ²	ft ²	K
L40	53.00-48.00	C	0.000	0.000	1.672	0.000	0.01
		A	0.000	0.000	20.357	0.000	0.09
		B	0.000	0.000	22.255	0.000	0.14
L41	48.00-39.75	C	0.000	0.000	30.740	0.000	0.19
		A	0.000	0.000	36.724	0.000	0.14
		B	0.000	0.000	37.257	0.000	0.24
		C	0.000	0.000	46.152	0.000	0.31
L42	39.75-38.75	A	0.000	0.000	4.375	0.000	0.02
		B	0.000	0.000	4.228	0.000	0.03
		C	0.000	0.000	4.783	0.000	0.04
L43	38.75-34.75	A	0.000	0.000	19.374	0.000	0.07
		B	0.000	0.000	18.785	0.000	0.12
		C	0.000	0.000	22.882	0.000	0.15
L44	34.75-34.50	A	0.000	0.000	1.302	0.000	0.00
		B	0.000	0.000	1.265	0.000	0.01
		C	0.000	0.000	1.612	0.000	0.01
L45	34.50-33.75	A	0.000	0.000	3.906	0.000	0.01
		B	0.000	0.000	3.796	0.000	0.02
		C	0.000	0.000	4.837	0.000	0.03
L46	33.75-33.50	A	0.000	0.000	1.302	0.000	0.00
		B	0.000	0.000	1.265	0.000	0.01
		C	0.000	0.000	1.612	0.000	0.01
L47	33.50-28.50	A	0.000	0.000	23.540	0.000	0.09
		B	0.000	0.000	22.805	0.000	0.14
		C	0.000	0.000	27.249	0.000	0.19
L48	28.50-24.00	A	0.000	0.000	20.027	0.000	0.08
		B	0.000	0.000	19.195	0.000	0.13
		C	0.000	0.000	21.694	0.000	0.17
L49	24.00-23.75	A	0.000	0.000	1.154	0.000	0.00
		B	0.000	0.000	1.087	0.000	0.01
		C	0.000	0.000	1.226	0.000	0.01
L50	23.75-18.75	A	0.000	0.000	23.073	0.000	0.09
		B	0.000	0.000	21.738	0.000	0.14
		C	0.000	0.000	24.515	0.000	0.19
L51	18.75-14.25	A	0.000	0.000	21.558	0.000	0.08
		B	0.000	0.000	20.356	0.000	0.13
		C	0.000	0.000	23.647	0.000	0.17
L52	14.25-14.00	A	0.000	0.000	1.323	0.000	0.00
		B	0.000	0.000	1.256	0.000	0.01
		C	0.000	0.000	1.564	0.000	0.01
L53	14.00-9.00	A	0.000	0.000	26.457	0.000	0.09
		B	0.000	0.000	25.121	0.000	0.14
		C	0.000	0.000	31.282	0.000	0.19
L54	9.00-5.00	A	0.000	0.000	18.495	0.000	0.04
		B	0.000	0.000	17.097	0.000	0.08
		C	0.000	0.000	25.025	0.000	0.15
L55	5.00-4.75	A	0.000	0.000	1.073	0.000	0.00
		B	0.000	0.000	1.006	0.000	0.00
		C	0.000	0.000	1.564	0.000	0.01
L56	4.75-4.50	A	0.000	0.000	1.073	0.000	0.00
		B	0.000	0.000	1.006	0.000	0.00
		C	0.000	0.000	1.564	0.000	0.01
L57	4.50-0.00	A	0.000	0.000	17.228	0.000	0.03
		B	0.000	0.000	16.026	0.000	0.08
		C	0.000	0.000	23.987	0.000	0.17

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation	Face or Leg	Ice Thickness	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight
n	ft		in	ft ²	ft ²	ft ²	ft ²	K
L1	120.00-115.00	A	1.448	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	17.257	0.000	0.22
L2	115.00-110.00	A	1.441	0.000	0.000	5.536	0.000	0.08
		B		0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
		C		0.000	0.000	17.221	0.000	0.22
L3	110.00-105.00	A	1.435	0.000	0.000	9.219	0.000	0.14
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	17.184	0.000	0.22
L4	105.00-100.00	A	1.428	0.000	0.000	9.210	0.000	0.14
		B		0.000	0.000	7.327	0.000	0.11
		C		0.000	0.000	18.573	0.000	0.24
L5	100.00-99.25	A	1.424	0.000	0.000	1.381	0.000	0.02
		B		0.000	0.000	1.704	0.000	0.02
		C		0.000	0.000	3.995	0.000	0.05
L6	99.25-99.00	A	1.423	0.000	0.000	0.460	0.000	0.01
		B		0.000	0.000	0.568	0.000	0.01
		C		0.000	0.000	1.332	0.000	0.02
L7	99.00-94.00	A	1.419	0.000	0.000	9.199	0.000	0.14
		B		0.000	0.000	11.346	0.000	0.14
		C		0.000	0.000	26.600	0.000	0.33
L8	94.00-90.08	A	1.413	0.000	0.000	11.733	0.000	0.15
		B		0.000	0.000	10.944	0.000	0.13
		C		0.000	0.000	23.277	0.000	0.31
L9	90.08-89.83	A	1.409	0.000	0.000	1.038	0.000	0.01
		B		0.000	0.000	0.824	0.000	0.01
		C		0.000	0.000	1.647	0.000	0.02
L10	89.83-89.50	A	1.409	0.000	0.000	1.370	0.000	0.02
		B		0.000	0.000	1.087	0.000	0.01
		C		0.000	0.000	2.173	0.000	0.03
L11	89.50-89.25	A	1.409	0.000	0.000	1.038	0.000	0.01
		B		0.000	0.000	0.823	0.000	0.01
		C		0.000	0.000	1.646	0.000	0.02
L12	89.25-84.25	A	1.404	0.000	0.000	20.739	0.000	0.23
		B		0.000	0.000	17.190	0.000	0.20
		C		0.000	0.000	32.888	0.000	0.42
L13	84.25-78.00	A	1.395	0.000	0.000	27.899	0.000	0.31
		B		0.000	0.000	26.770	0.000	0.30
		C		0.000	0.000	41.007	0.000	0.54
L14	78.00-77.00	A	1.389	0.000	0.000	5.896	0.000	0.06
		B		0.000	0.000	5.519	0.000	0.06
		C		0.000	0.000	6.561	0.000	0.09
L15	77.00-76.75	A	1.388	0.000	0.000	1.472	0.000	0.02
		B		0.000	0.000	1.377	0.000	0.01
		C		0.000	0.000	1.637	0.000	0.02
L16	76.75-76.50	A	1.387	0.000	0.000	1.472	0.000	0.02
		B		0.000	0.000	1.377	0.000	0.01
		C		0.000	0.000	1.637	0.000	0.02
L17	76.50-75.50	A	1.386	0.000	0.000	5.887	0.000	0.06
		B		0.000	0.000	5.506	0.000	0.06
		C		0.000	0.000	6.545	0.000	0.09
L18	75.50-75.25	A	1.385	0.000	0.000	1.472	0.000	0.02
		B		0.000	0.000	1.376	0.000	0.01
		C		0.000	0.000	1.636	0.000	0.02
L19	75.25-74.50	A	1.384	0.000	0.000	4.414	0.000	0.05
		B		0.000	0.000	4.128	0.000	0.04
		C		0.000	0.000	5.246	0.000	0.07
L20	74.50-74.25	A	1.383	0.000	0.000	1.471	0.000	0.02
		B		0.000	0.000	1.376	0.000	0.01
		C		0.000	0.000	1.975	0.000	0.02
L21	74.25-72.00	A	1.381	0.000	0.000	13.236	0.000	0.14
		B		0.000	0.000	10.488	0.000	0.12
		C		0.000	0.000	14.936	0.000	0.19
L22	72.00-71.75	A	1.378	0.000	0.000	2.260	0.000	0.02
		B		0.000	0.000	1.672	0.000	0.02
		C		0.000	0.000	2.056	0.000	0.02
L23	71.75-70.50	A	1.377	0.000	0.000	11.298	0.000	0.11
		B		0.000	0.000	8.358	0.000	0.09
		C		0.000	0.000	10.277	0.000	0.12
L24	70.50-70.25	A	1.375	0.000	0.000	2.259	0.000	0.02
		B		0.000	0.000	1.671	0.000	0.02
		C		0.000	0.000	2.055	0.000	0.02
L25	70.25-70.00	A	1.375	0.000	0.000	2.259	0.000	0.02
		B		0.000	0.000	1.671	0.000	0.02

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L26	70.00-69.75	C		0.000	0.000	2.054	0.000	0.02
		A	1.374	0.000	0.000	2.259	0.000	0.02
		B		0.000	0.000	1.671	0.000	0.02
L27	69.75-69.50	C		0.000	0.000	2.054	0.000	0.02
		A	1.374	0.000	0.000	2.259	0.000	0.02
		B		0.000	0.000	1.671	0.000	0.02
L28	69.50-69.25	C		0.000	0.000	2.054	0.000	0.02
		A	1.373	0.000	0.000	2.258	0.000	0.02
		B		0.000	0.000	1.670	0.000	0.02
L29	69.25-64.25	C		0.000	0.000	2.054	0.000	0.02
		A	1.368	0.000	0.000	30.574	0.000	0.31
		B		0.000	0.000	22.293	0.000	0.24
L30	64.25-59.25	C		0.000	0.000	37.519	0.000	0.46
		A	1.357	0.000	0.000	24.861	0.000	0.26
		B		0.000	0.000	19.149	0.000	0.21
L31	59.25-56.00	C		0.000	0.000	34.561	0.000	0.44
		A	1.348	0.000	0.000	17.663	0.000	0.18
		B		0.000	0.000	13.944	0.000	0.15
L32	56.00-55.75	C		0.000	0.000	25.215	0.000	0.31
		A	1.344	0.000	0.000	1.812	0.000	0.02
		B		0.000	0.000	1.843	0.000	0.02
L33	55.75-55.50	C		0.000	0.000	2.549	0.000	0.03
		A	1.343	0.000	0.000	1.812	0.000	0.02
		B		0.000	0.000	1.843	0.000	0.02
L34	55.50-55.25	C		0.000	0.000	2.548	0.000	0.03
		A	1.343	0.000	0.000	1.812	0.000	0.02
		B		0.000	0.000	1.842	0.000	0.02
L35	55.25-54.00	C		0.000	0.000	2.548	0.000	0.03
		A	1.341	0.000	0.000	9.056	0.000	0.10
		B		0.000	0.000	9.209	0.000	0.12
L36	54.00-53.75	C		0.000	0.000	12.735	0.000	0.16
		A	1.339	0.000	0.000	1.811	0.000	0.02
		B		0.000	0.000	1.841	0.000	0.02
L37	53.75-53.50	C		0.000	0.000	2.546	0.000	0.03
		A	1.338	0.000	0.000	1.810	0.000	0.02
		B		0.000	0.000	1.841	0.000	0.02
L38	53.50-53.25	C		0.000	0.000	2.545	0.000	0.03
		A	1.338	0.000	0.000	1.810	0.000	0.02
		B		0.000	0.000	1.840	0.000	0.02
L39	53.25-53.00	C		0.000	0.000	2.545	0.000	0.03
		A	1.337	0.000	0.000	1.810	0.000	0.02
		B		0.000	0.000	1.840	0.000	0.02
L40	53.00-48.00	C		0.000	0.000	2.545	0.000	0.03
		A	1.330	0.000	0.000	28.028	0.000	0.34
		B		0.000	0.000	32.684	0.000	0.43
L41	48.00-39.75	C		0.000	0.000	47.442	0.000	0.59
		A	1.312	0.000	0.000	50.627	0.000	0.60
		B		0.000	0.000	54.569	0.000	0.71
L42	39.75-38.75	C		0.000	0.000	72.392	0.000	0.93
		A	1.297	0.000	0.000	6.049	0.000	0.07
		B		0.000	0.000	6.233	0.000	0.08
L43	38.75-34.75	C		0.000	0.000	7.688	0.000	0.10
		A	1.289	0.000	0.000	26.554	0.000	0.30
		B		0.000	0.000	27.254	0.000	0.35
L44	34.75-34.50	C		0.000	0.000	35.482	0.000	0.45
		A	1.281	0.000	0.000	1.777	0.000	0.02
		B		0.000	0.000	1.820	0.000	0.02
L45	34.50-33.75	C		0.000	0.000	2.452	0.000	0.03
		A	1.279	0.000	0.000	5.328	0.000	0.06
		B		0.000	0.000	5.456	0.000	0.07
L46	33.75-33.50	C		0.000	0.000	7.352	0.000	0.09
		A	1.277	0.000	0.000	1.775	0.000	0.02
		B		0.000	0.000	1.818	0.000	0.02
L47	33.50-28.50	C		0.000	0.000	2.450	0.000	0.03
		A	1.267	0.000	0.000	32.184	0.000	0.37
		B		0.000	0.000	33.015	0.000	0.42
L48	28.50-24.00	C		0.000	0.000	42.350	0.000	0.54
		A	1.246	0.000	0.000	27.251	0.000	0.31
		B		0.000	0.000	27.791	0.000	0.36

Tower Section	Tower Elevation	Face or Leg	Ice Thickness	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight
n	ft		in	ft ²	ft ²	ft ²	ft ²	K
L49	24.00-23.75	C		0.000	0.000	34.190	0.000	0.45
		A	1.234	0.000	0.000	1.552	0.000	0.02
		B		0.000	0.000	1.560	0.000	0.02
L50	23.75-18.75	C		0.000	0.000	1.914	0.000	0.02
		A	1.220	0.000	0.000	30.964	0.000	0.35
		B		0.000	0.000	31.101	0.000	0.40
		C		0.000	0.000	38.145	0.000	0.49
L51	18.75-14.25	A	1.190	0.000	0.000	28.793	0.000	0.31
		B		0.000	0.000	28.862	0.000	0.36
		C		0.000	0.000	36.204	0.000	0.45
L52	14.25-14.00	A	1.171	0.000	0.000	1.763	0.000	0.02
		B		0.000	0.000	1.765	0.000	0.02
		C		0.000	0.000	2.339	0.000	0.03
L53	14.00-9.00	A	1.147	0.000	0.000	35.113	0.000	0.36
		B		0.000	0.000	35.104	0.000	0.41
		C		0.000	0.000	46.498	0.000	0.54
L54	9.00-5.00	A	1.092	0.000	0.000	24.559	0.000	0.23
		B		0.000	0.000	24.062	0.000	0.26
		C		0.000	0.000	36.676	0.000	0.42
L55	5.00-4.75	A	1.053	0.000	0.000	1.424	0.000	0.01
		B		0.000	0.000	1.414	0.000	0.01
		C		0.000	0.000	2.270	0.000	0.03
L56	4.75-4.50	A	1.048	0.000	0.000	1.422	0.000	0.01
		B		0.000	0.000	1.412	0.000	0.01
		C		0.000	0.000	2.266	0.000	0.03
L57	4.50-0.00	A	0.974	0.000	0.000	22.681	0.000	0.19
		B		0.000	0.000	22.362	0.000	0.23
		C		0.000	0.000	34.878	0.000	0.40

Feed Line Center of Pressure

Section	Elevation	CP _x	CP _z	CP _x	CP _z
	ft	in	in	Ice in	Ice in
L1	120.00-115.00	2.5592	4.6593	2.1923	4.6294
L2	115.00-110.00	0.9329	1.8063	1.0788	2.5894
L3	110.00-105.00	0.1330	0.4051	0.5079	1.5513
L4	105.00-100.00	0.9201	-0.8982	1.1952	0.0737
L5	100.00-99.25	1.1771	-0.9060	1.3379	-0.0797
L6	99.25-99.00	1.1809	-0.9084	1.3423	-0.0799
L7	99.00-94.00	1.1978	-0.9191	1.3635	-0.0811
L8	94.00-90.08	0.1746	-1.0382	0.6965	-0.2768
L9	90.08-89.83	-0.6039	-1.0994	0.1164	-0.4166
L10	89.83-89.50	-0.6048	-1.1010	0.1165	-0.4174
L11	89.50-89.25	-0.6060	-1.1033	0.1167	-0.4182
L12	89.25-84.25	-0.5525	-1.1469	0.2133	-0.4774
L13	84.25-78.00	-0.5436	-1.0003	0.2905	-0.4406
L14	78.00-77.00	-0.0469	-1.2234	0.5631	-0.6465
L15	77.00-76.75	-0.0470	-1.2272	0.5630	-0.6500
L16	76.75-76.50	-0.0470	-1.2289	0.5638	-0.6510
L17	76.50-75.50	-0.0471	-1.2327	0.5655	-0.6532
L18	75.50-75.25	-0.0472	-1.2359	0.5670	-0.6552
L19	75.25-74.50	0.3216	-0.9566	0.8274	-0.4608
L20	74.50-74.25	1.0074	-0.4347	1.3203	-0.0903
L21	74.25-72.00	1.1392	-0.1211	1.4601	0.2002
L22	72.00-71.75	0.8578	-0.9155	1.1522	-0.5448
L23	71.75-70.50	0.8617	-0.9190	1.1570	-0.5470
L24	70.50-70.25	0.8656	-0.9227	1.1617	-0.5492
L25	70.25-70.00	0.8669	-0.9239	1.1633	-0.5499
L26	70.00-69.75	0.8681	-0.9250	1.1648	-0.5506
L27	69.75-69.50	0.8695	-0.9263	1.1665	-0.5515
L28	69.50-69.25	0.8707	-0.9274	1.1679	-0.5521
L29	69.25-64.25	1.4797	-0.7507	1.6821	-0.3228
L30	64.25-59.25	2.4519	-0.7195	2.4223	-0.2494
L31	59.25-56.00	2.9705	-1.1655	2.8498	-0.6376

Section	Elevation	CP _x	CP _z	CP _x Ice	CP _z Ice
	ft	in	in	in	in
L32	56.00-55.75	0.9911	-1.8487	1.3064	-1.3285
L33	55.75-55.50	0.9923	-1.8510	1.3080	-1.3303
L34	55.50-55.25	0.9937	-1.8534	1.3097	-1.3321
L35	55.25-54.00	0.9975	-1.8600	1.3144	-1.3374
L36	54.00-53.75	1.0011	-1.8663	1.3189	-1.3424
L37	53.75-53.50	1.0023	-1.8685	1.3204	-1.3442
L38	53.50-53.25	1.0034	-1.8705	1.3218	-1.3458
L39	53.25-53.00	1.0046	-1.8726	1.3233	-1.3474
L40	53.00-48.00	0.6782	-2.4196	1.1226	-1.7203
L41	48.00-39.75	0.1875	-2.2791	0.7676	-1.5577
L42	39.75-38.75	-0.3702	-1.6269	0.3487	-0.9682
L43	38.75-34.75	-0.0935	-1.8948	0.5157	-1.2470
L44	34.75-34.50	0.0871	-2.0734	0.6323	-1.4353
L45	34.50-33.75	0.0874	-2.0778	0.6333	-1.4389
L46	33.75-33.50	0.0876	-2.0816	0.6341	-1.4422
L47	33.50-28.50	-0.1740	-1.8672	0.4734	-1.2072
L48	28.50-24.00	-0.3462	-1.6745	0.3700	-1.0190
L49	24.00-23.75	-0.2592	-1.6092	0.4180	-0.9889
L50	23.75-18.75	-0.2616	-1.6251	0.4179	-1.0028
L51	18.75-14.25	-0.1523	-1.7673	0.4911	-1.1496
L52	14.25-14.00	0.1256	-2.0611	0.6788	-1.4647
L53	14.00-9.00	0.1272	-2.0814	0.6785	-1.4858
L54	9.00-5.00	0.7692	-0.8525	1.2173	-0.4781
L55	5.00-4.75	1.1371	-0.3280	1.5145	-0.0572
L56	4.75-4.50	1.1379	-0.3282	1.5139	-0.0584
L57	4.50-0.00	0.9604	0.1814	1.3833	0.3657

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L1	1	Safety Line 3/8	115.00 - 120.00	1.0000	1.0000
L1	5	1266A(1/8)	115.00 - 120.00	1.0000	1.0000
L1	6	7983A(ELLIPTICAL)	115.00 - 120.00	1.0000	1.0000
L1	8	3" Flexible Conduit	115.00 - 120.00	1.0000	1.0000
L1	9	HB114-1-0813U4-M5J(1-1/4)	115.00 - 120.00	1.0000	1.0000
L2	1	Safety Line 3/8	110.00 - 115.00	1.0000	1.0000
L2	5	1266A(1/8)	110.00 - 115.00	1.0000	1.0000
L2	6	7983A(ELLIPTICAL)	110.00 - 115.00	1.0000	1.0000
L2	8	3" Flexible Conduit	110.00 - 115.00	1.0000	1.0000
L2	9	HB114-1-0813U4-M5J(1-1/4)	110.00 - 115.00	1.0000	1.0000
L2	11	LDF7-50A(1-5/8)	110.00 - 113.00	1.0000	1.0000
L3	1	Safety Line 3/8	105.00 - 110.00	1.0000	1.0000
L3	5	1266A(1/8)	105.00 - 110.00	1.0000	1.0000
L3	6	7983A(ELLIPTICAL)	105.00 - 110.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L3	8	3" Flexible Conduit	105.00 - 110.00	1.0000	1.0000
L3	9	HB114-1-0813U4-M5J(1- 1/4)	105.00 - 110.00	1.0000	1.0000
L3	11	LDF7-50A(1-5/8)	105.00 - 110.00	1.0000	1.0000
L4	1	Safety Line 3/8	100.00 - 105.00	1.0000	1.0000
L4	5	1266A(1/8)	100.00 - 105.00	1.0000	1.0000
L4	6	7983A(ELLIPTICAL)	100.00 - 105.00	1.0000	1.0000
L4	8	3" Flexible Conduit	100.00 - 105.00	1.0000	1.0000
L4	9	HB114-1-0813U4-M5J(1- 1/4)	100.00 - 105.00	1.0000	1.0000
L4	11	LDF7-50A(1-5/8)	100.00 - 105.00	1.0000	1.0000
L4	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	100.00 - 105.00	1.0000	1.0000
L4	14	HCS 6X12 6AWG(1-3/8)	100.00 - 105.00	1.0000	1.0000
L4	73	PL 1.25x4	100.00 - 100.75	1.0000	1.0000
L4	74	PL 1.25x4	100.00 - 100.75	1.0000	1.0000
L4	75	PL 1.25x4	100.00 - 100.75	1.0000	1.0000
L5	1	Safety Line 3/8	99.25 - 100.00	1.0000	1.0000
L5	5	1266A(1/8)	99.25 - 100.00	1.0000	1.0000
L5	6	7983A(ELLIPTICAL)	99.25 - 100.00	1.0000	1.0000
L5	8	3" Flexible Conduit	99.25 - 100.00	1.0000	1.0000
L5	9	HB114-1-0813U4-M5J(1- 1/4)	99.25 - 100.00	1.0000	1.0000
L5	11	LDF7-50A(1-5/8)	99.25 - 100.00	1.0000	1.0000
L5	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	99.25 - 100.00	1.0000	1.0000
L5	14	HCS 6X12 6AWG(1-3/8)	99.25 - 100.00	1.0000	1.0000
L5	73	PL 1.25x4	99.25 - 100.00	1.0000	1.0000
L5	74	PL 1.25x4	99.25 - 100.00	1.0000	1.0000
L5	75	PL 1.25x4	99.25 - 100.00	1.0000	1.0000
L6	1	Safety Line 3/8	99.00 - 99.25	1.0000	1.0000
L6	5	1266A(1/8)	99.00 - 99.25	1.0000	1.0000
L6	6	7983A(ELLIPTICAL)	99.00 - 99.25	1.0000	1.0000
L6	8	3" Flexible Conduit	99.00 - 99.25	1.0000	1.0000
L6	9	HB114-1-0813U4-M5J(1- 1/4)	99.00 - 99.25	1.0000	1.0000
L6	11	LDF7-50A(1-5/8)	99.00 - 99.25	1.0000	1.0000
L6	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	99.00 - 99.25	1.0000	1.0000
L6	14	HCS 6X12 6AWG(1-3/8)	99.00 - 99.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L6	73	PL 1.25x4	99.00 - 99.25	1.0000	1.0000
L6	74	PL 1.25x4	99.00 - 99.25	1.0000	1.0000
L6	75	PL 1.25x4	99.00 - 99.25	1.0000	1.0000
L7	1	Safety Line 3/8	94.00 - 99.00	1.0000	1.0000
L7	5	1266A(1/8)	94.00 - 99.00	1.0000	1.0000
L7	6	7983A(ELLIPTICAL)	94.00 - 99.00	1.0000	1.0000
L7	8	3" Flexible Conduit	94.00 - 99.00	1.0000	1.0000
L7	9	HB114-1-0813U4-M5J(1-1/4)	94.00 - 99.00	1.0000	1.0000
L7	11	LDF7-50A(1-5/8)	94.00 - 99.00	1.0000	1.0000
L7	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	94.00 - 99.00	1.0000	1.0000
L7	14	HCS 6X12 6AWG(1-3/8)	94.00 - 99.00	1.0000	1.0000
L7	73	PL 1.25x4	94.00 - 99.00	1.0000	1.0000
L7	74	PL 1.25x4	94.00 - 99.00	1.0000	1.0000
L7	75	PL 1.25x4	94.00 - 99.00	1.0000	1.0000
L8	1	Safety Line 3/8	90.08 - 94.00	1.0000	1.0000
L8	5	1266A(1/8)	90.08 - 94.00	1.0000	1.0000
L8	6	7983A(ELLIPTICAL)	90.08 - 94.00	1.0000	1.0000
L8	8	3" Flexible Conduit	90.08 - 94.00	1.0000	1.0000
L8	9	HB114-1-0813U4-M5J(1-1/4)	90.08 - 94.00	1.0000	1.0000
L8	11	LDF7-50A(1-5/8)	90.08 - 94.00	1.0000	1.0000
L8	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	90.08 - 94.00	1.0000	1.0000
L8	14	HCS 6X12 6AWG(1-3/8)	90.08 - 94.00	1.0000	1.0000
L8	62	(Area) CCI-65FP-060100 (H)	90.08 - 92.00	1.0000	1.0000
L8	63	(Area) CCI-65FP-060100 (H)	90.08 - 92.00	1.0000	1.0000
L8	65	(Area) CCI-65FP-045100 (H)	90.08 - 92.08	1.0000	1.0000
L8	66	(Area) CCI-65FP-045100 (H)	90.08 - 92.08	1.0000	1.0000
L8	73	PL 1.25x4	90.08 - 94.00	1.0000	1.0000
L8	74	PL 1.25x4	90.08 - 94.00	1.0000	1.0000
L8	75	PL 1.25x4	90.08 - 94.00	1.0000	1.0000
L9	1	Safety Line 3/8	89.83 - 90.08	1.0000	1.0000
L9	5	1266A(1/8)	89.83 - 90.08	1.0000	1.0000
L9	6	7983A(ELLIPTICAL)	89.83 - 90.08	1.0000	1.0000
L9	8	3" Flexible Conduit	89.83 - 90.08	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L9	9	HB114-1-0813U4-M5J(1-1/4)	89.83 - 90.08	1.0000	1.0000
L9	11	LDF7-50A(1-5/8)	89.83 - 90.08	1.0000	1.0000
L9	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	89.83 - 90.08	1.0000	1.0000
L9	14	HCS 6X12 6AWG(1-3/8)	89.83 - 90.08	1.0000	1.0000
L9	62	(Area) CCI-65FP-060100 (H)	89.83 - 90.08	1.0000	1.0000
L9	63	(Area) CCI-65FP-060100 (H)	89.83 - 90.08	1.0000	1.0000
L9	65	(Area) CCI-65FP-045100 (H)	89.83 - 90.08	1.0000	1.0000
L9	66	(Area) CCI-65FP-045100 (H)	89.83 - 90.08	1.0000	1.0000
L9	73	PL 1.25x4	89.83 - 90.08	1.0000	1.0000
L9	74	PL 1.25x4	89.83 - 90.08	1.0000	1.0000
L9	75	PL 1.25x4	89.83 - 90.08	1.0000	1.0000
L10	1	Safety Line 3/8	89.50 - 89.83	1.0000	1.0000
L10	5	1266A(1/8)	89.50 - 89.83	1.0000	1.0000
L10	6	7983A(ELLIPTICAL)	89.50 - 89.83	1.0000	1.0000
L10	8	3" Flexible Conduit	89.50 - 89.83	1.0000	1.0000
L10	9	HB114-1-0813U4-M5J(1-1/4)	89.50 - 89.83	1.0000	1.0000
L10	11	LDF7-50A(1-5/8)	89.50 - 89.83	1.0000	1.0000
L10	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	89.50 - 89.83	1.0000	1.0000
L10	14	HCS 6X12 6AWG(1-3/8)	89.50 - 89.83	1.0000	1.0000
L10	62	(Area) CCI-65FP-060100 (H)	89.50 - 89.83	1.0000	1.0000
L10	63	(Area) CCI-65FP-060100 (H)	89.50 - 89.83	1.0000	1.0000
L10	65	(Area) CCI-65FP-045100 (H)	89.50 - 89.83	1.0000	1.0000
L10	66	(Area) CCI-65FP-045100 (H)	89.50 - 89.83	1.0000	1.0000
L10	73	PL 1.25x4	89.50 - 89.83	1.0000	1.0000
L10	74	PL 1.25x4	89.50 - 89.83	1.0000	1.0000
L10	75	PL 1.25x4	89.50 - 89.83	1.0000	1.0000
L11	1	Safety Line 3/8	89.25 - 89.50	1.0000	1.0000
L11	5	1266A(1/8)	89.25 - 89.50	1.0000	1.0000
L11	6	7983A(ELLIPTICAL)	89.25 - 89.50	1.0000	1.0000
L11	8	3" Flexible Conduit	89.25 - 89.50	1.0000	1.0000
L11	9	HB114-1-0813U4-M5J(1-1/4)	89.25 - 89.50	1.0000	1.0000
L11	11	LDF7-50A(1-5/8)	89.25 - 89.50	1.0000	1.0000
L11	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	89.25 - 89.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L11	14	HCS 6X12 6AWG(1-3/8)	89.25 - 89.50	1.0000	1.0000
L11	62	(Area) CCI-65FP-060100 (H)	89.25 - 89.50	1.0000	1.0000
L11	63	(Area) CCI-65FP-060100 (H)	89.25 - 89.50	1.0000	1.0000
L11	65	(Area) CCI-65FP-045100 (H)	89.25 - 89.50	1.0000	1.0000
L11	66	(Area) CCI-65FP-045100 (H)	89.25 - 89.50	1.0000	1.0000
L11	73	PL 1.25x4	89.25 - 89.50	1.0000	1.0000
L11	74	PL 1.25x4	89.25 - 89.50	1.0000	1.0000
L11	75	PL 1.25x4	89.25 - 89.50	1.0000	1.0000
L12	1	Safety Line 3/8	84.25 - 89.25	1.0000	1.0000
L12	3	CU12PSM9P8XXX(1-3/8)	84.25 - 86.00	1.0000	1.0000
L12	5	1266A(1/8)	84.25 - 89.25	1.0000	1.0000
L12	6	7983A(ELLIPTICAL)	84.25 - 89.25	1.0000	1.0000
L12	8	3" Flexible Conduit	84.25 - 89.25	1.0000	1.0000
L12	9	HB114-1-0813U4-M5J(1-1/4)	84.25 - 89.25	1.0000	1.0000
L12	11	LDF7-50A(1-5/8)	84.25 - 89.25	1.0000	1.0000
L12	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	84.25 - 89.25	1.0000	1.0000
L12	14	HCS 6X12 6AWG(1-3/8)	84.25 - 89.25	1.0000	1.0000
L12	62	(Area) CCI-65FP-060100 (H)	84.25 - 89.25	1.0000	1.0000
L12	63	(Area) CCI-65FP-060100 (H)	84.25 - 89.25	1.0000	1.0000
L12	65	(Area) CCI-65FP-045100 (H)	84.25 - 89.25	1.0000	1.0000
L12	66	(Area) CCI-65FP-045100 (H)	84.25 - 89.25	1.0000	1.0000
L12	73	PL 1.25x4	84.25 - 89.25	1.0000	1.0000
L12	74	PL 1.25x4	84.25 - 89.25	1.0000	1.0000
L12	75	PL 1.25x4	84.25 - 89.25	1.0000	1.0000
L13	1	Safety Line 3/8	78.00 - 84.25	1.0000	1.0000
L13	3	CU12PSM9P8XXX(1-3/8)	78.00 - 84.25	1.0000	1.0000
L13	5	1266A(1/8)	78.00 - 84.25	1.0000	1.0000
L13	6	7983A(ELLIPTICAL)	78.00 - 84.25	1.0000	1.0000
L13	8	3" Flexible Conduit	78.00 - 84.25	1.0000	1.0000
L13	9	HB114-1-0813U4-M5J(1-1/4)	78.00 - 84.25	1.0000	1.0000
L13	11	LDF7-50A(1-5/8)	78.00 - 84.25	1.0000	1.0000
L13	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	78.00 - 84.25	1.0000	1.0000
L13	14	HCS 6X12 6AWG(1-3/8)	78.00 - 84.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L13	62	(Area) CCI-65FP-060100 (H)	78.00 - 84.25	1.0000	1.0000
L13	63	(Area) CCI-65FP-060100 (H)	78.00 - 84.25	1.0000	1.0000
L13	65	(Area) CCI-65FP-045100 (H)	78.00 - 84.25	1.0000	1.0000
L13	66	(Area) CCI-65FP-045100 (H)	78.00 - 84.25	1.0000	1.0000
L13	73	PL 1.25x4	78.00 - 84.25	1.0000	1.0000
L13	74	PL 1.25x4	78.00 - 84.25	1.0000	1.0000
L13	75	PL 1.25x4	78.00 - 84.25	1.0000	1.0000
L13	77	PL 1.25x4	78.00 - 80.00	1.0000	1.0000
L13	78	PL 1.25x4	78.00 - 78.25	1.0000	1.0000
L13	79	PL 1.25x4	78.00 - 80.00	1.0000	1.0000
L13	80	PL 1.25x4	78.00 - 80.00	1.0000	1.0000
L14	1	Safety Line 3/8	77.00 - 78.00	1.0000	1.0000
L14	3	CU12PSM9P8XXX(1-3/8)	77.00 - 78.00	1.0000	1.0000
L14	5	1266A(1/8)	77.00 - 78.00	1.0000	1.0000
L14	6	7983A(ELLIPTICAL)	77.00 - 78.00	1.0000	1.0000
L14	8	3" Flexible Conduit	77.00 - 78.00	1.0000	1.0000
L14	9	HB114-1-0813U4-M5J(1-1/4)	77.00 - 78.00	1.0000	1.0000
L14	11	LDF7-50A(1-5/8)	77.00 - 78.00	1.0000	1.0000
L14	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	77.00 - 78.00	1.0000	1.0000
L14	14	HCS 6X12 6AWG(1-3/8)	77.00 - 78.00	1.0000	1.0000
L14	62	(Area) CCI-65FP-060100 (H)	77.00 - 78.00	1.0000	1.0000
L14	63	(Area) CCI-65FP-060100 (H)	77.00 - 78.00	1.0000	1.0000
L14	65	(Area) CCI-65FP-045100 (H)	77.00 - 78.00	1.0000	1.0000
L14	66	(Area) CCI-65FP-045100 (H)	77.00 - 78.00	1.0000	1.0000
L14	73	PL 1.25x4	77.00 - 78.00	1.0000	1.0000
L14	74	PL 1.25x4	77.00 - 78.00	1.0000	1.0000
L14	75	PL 1.25x4	77.00 - 78.00	1.0000	1.0000
L14	77	PL 1.25x4	77.00 - 78.00	1.0000	1.0000
L14	78	PL 1.25x4	77.00 - 78.00	1.0000	1.0000
L14	79	PL 1.25x4	77.00 - 78.00	1.0000	1.0000
L14	80	PL 1.25x4	77.00 - 78.00	1.0000	1.0000
L15	1	Safety Line 3/8	76.75 - 77.00	1.0000	1.0000
L15	3	CU12PSM9P8XXX(1-3/8)	76.75 - 77.00	1.0000	1.0000
L15	5	1266A(1/8)	76.75 - 77.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L15	6	7983A(ELLIPTICAL)	76.75 - 77.00	1.0000	1.0000
L15	8	3" Flexible Conduit	76.75 - 77.00	1.0000	1.0000
L15	9	HB114-1-0813U4-M5J(1-1/4)	76.75 - 77.00	1.0000	1.0000
L15	11	LDF7-50A(1-5/8)	76.75 - 77.00	1.0000	1.0000
L15	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	76.75 - 77.00	1.0000	1.0000
L15	14	HCS 6X12 6AWG(1-3/8)	76.75 - 77.00	1.0000	1.0000
L15	62	(Area) CCI-65FP-060100 (H)	76.75 - 77.00	1.0000	1.0000
L15	63	(Area) CCI-65FP-060100 (H)	76.75 - 77.00	1.0000	1.0000
L15	65	(Area) CCI-65FP-045100 (H)	76.75 - 77.00	1.0000	1.0000
L15	66	(Area) CCI-65FP-045100 (H)	76.75 - 77.00	1.0000	1.0000
L15	73	PL 1.25x4	76.75 - 77.00	1.0000	1.0000
L15	74	PL 1.25x4	76.75 - 77.00	1.0000	1.0000
L15	75	PL 1.25x4	76.75 - 77.00	1.0000	1.0000
L15	77	PL 1.25x4	76.75 - 77.00	1.0000	1.0000
L15	78	PL 1.25x4	76.75 - 77.00	1.0000	1.0000
L15	79	PL 1.25x4	76.75 - 77.00	1.0000	1.0000
L15	80	PL 1.25x4	76.75 - 77.00	1.0000	1.0000
L16	1	Safety Line 3/8	76.50 - 76.75	1.0000	1.0000
L16	3	CU12PSM9P8XXX(1-3/8)	76.50 - 76.75	1.0000	1.0000
L16	5	1266A(1/8)	76.50 - 76.75	1.0000	1.0000
L16	6	7983A(ELLIPTICAL)	76.50 - 76.75	1.0000	1.0000
L16	8	3" Flexible Conduit	76.50 - 76.75	1.0000	1.0000
L16	9	HB114-1-0813U4-M5J(1-1/4)	76.50 - 76.75	1.0000	1.0000
L16	11	LDF7-50A(1-5/8)	76.50 - 76.75	1.0000	1.0000
L16	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	76.50 - 76.75	1.0000	1.0000
L16	14	HCS 6X12 6AWG(1-3/8)	76.50 - 76.75	1.0000	1.0000
L16	62	(Area) CCI-65FP-060100 (H)	76.50 - 76.75	1.0000	1.0000
L16	63	(Area) CCI-65FP-060100 (H)	76.50 - 76.75	1.0000	1.0000
L16	65	(Area) CCI-65FP-045100 (H)	76.50 - 76.75	1.0000	1.0000
L16	66	(Area) CCI-65FP-045100 (H)	76.50 - 76.75	1.0000	1.0000
L16	73	PL 1.25x4	76.50 - 76.75	1.0000	1.0000
L16	74	PL 1.25x4	76.50 - 76.75	1.0000	1.0000
L16	75	PL 1.25x4	76.50 - 76.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L16	77	PL 1.25x4	76.50 - 76.75	1.0000	1.0000
L16	78	PL 1.25x4	76.50 - 76.75	1.0000	1.0000
L16	79	PL 1.25x4	76.50 - 76.75	1.0000	1.0000
L16	80	PL 1.25x4	76.50 - 76.75	1.0000	1.0000
L17	1	Safety Line 3/8	75.50 - 76.50	1.0000	1.0000
L17	3	CU12PSM9P8XXX(1-3/8)	75.50 - 76.50	1.0000	1.0000
L17	5	1266A(1/8)	75.50 - 76.50	1.0000	1.0000
L17	6	7983A(ELLIPTICAL)	75.50 - 76.50	1.0000	1.0000
L17	8	3" Flexible Conduit	75.50 - 76.50	1.0000	1.0000
L17	9	HB114-1-0813U4-M5J(1-1/4)	75.50 - 76.50	1.0000	1.0000
L17	11	LDF7-50A(1-5/8)	75.50 - 76.50	1.0000	1.0000
L17	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	75.50 - 76.50	1.0000	1.0000
L17	14	HCS 6X12 6AWG(1-3/8)	75.50 - 76.50	1.0000	1.0000
L17	62	(Area) CCI-65FP-060100 (H)	75.50 - 76.50	1.0000	1.0000
L17	63	(Area) CCI-65FP-060100 (H)	75.50 - 76.50	1.0000	1.0000
L17	65	(Area) CCI-65FP-045100 (H)	75.50 - 76.50	1.0000	1.0000
L17	66	(Area) CCI-65FP-045100 (H)	75.50 - 76.50	1.0000	1.0000
L17	73	PL 1.25x4	75.50 - 76.50	1.0000	1.0000
L17	74	PL 1.25x4	75.50 - 76.50	1.0000	1.0000
L17	75	PL 1.25x4	75.50 - 76.50	1.0000	1.0000
L17	77	PL 1.25x4	75.50 - 76.50	1.0000	1.0000
L17	78	PL 1.25x4	75.50 - 76.50	1.0000	1.0000
L17	79	PL 1.25x4	75.50 - 76.50	1.0000	1.0000
L17	80	PL 1.25x4	75.50 - 76.50	1.0000	1.0000
L18	1	Safety Line 3/8	75.25 - 75.50	1.0000	1.0000
L18	3	CU12PSM9P8XXX(1-3/8)	75.25 - 75.50	1.0000	1.0000
L18	5	1266A(1/8)	75.25 - 75.50	1.0000	1.0000
L18	6	7983A(ELLIPTICAL)	75.25 - 75.50	1.0000	1.0000
L18	8	3" Flexible Conduit	75.25 - 75.50	1.0000	1.0000
L18	9	HB114-1-0813U4-M5J(1-1/4)	75.25 - 75.50	1.0000	1.0000
L18	11	LDF7-50A(1-5/8)	75.25 - 75.50	1.0000	1.0000
L18	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	75.25 - 75.50	1.0000	1.0000
L18	14	HCS 6X12 6AWG(1-3/8)	75.25 - 75.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L18	62	(Area) CCI-65FP-060100 (H)	75.25 - 75.50	1.0000	1.0000
L18	63	(Area) CCI-65FP-060100 (H)	75.25 - 75.50	1.0000	1.0000
L18	65	(Area) CCI-65FP-045100 (H)	75.25 - 75.50	1.0000	1.0000
L18	66	(Area) CCI-65FP-045100 (H)	75.25 - 75.50	1.0000	1.0000
L18	73	PL 1.25x4	75.25 - 75.50	1.0000	1.0000
L18	74	PL 1.25x4	75.25 - 75.50	1.0000	1.0000
L18	75	PL 1.25x4	75.25 - 75.50	1.0000	1.0000
L18	77	PL 1.25x4	75.25 - 75.50	1.0000	1.0000
L18	78	PL 1.25x4	75.25 - 75.50	1.0000	1.0000
L18	79	PL 1.25x4	75.25 - 75.50	1.0000	1.0000
L18	80	PL 1.25x4	75.25 - 75.50	1.0000	1.0000
L19	1	Safety Line 3/8	74.50 - 75.25	1.0000	1.0000
L19	3	CU12PSM9P8XXX(1-3/8)	74.50 - 75.25	1.0000	1.0000
L19	5	1266A(1/8)	74.50 - 75.25	1.0000	1.0000
L19	6	7983A(ELLIPTICAL)	74.50 - 75.25	1.0000	1.0000
L19	8	3" Flexible Conduit	74.50 - 75.25	1.0000	1.0000
L19	9	HB114-1-0813U4-M5J(1-1/4)	74.50 - 75.25	1.0000	1.0000
L19	11	LDF7-50A(1-5/8)	74.50 - 75.25	1.0000	1.0000
L19	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	74.50 - 75.25	1.0000	1.0000
L19	14	HCS 6X12 6AWG(1-3/8)	74.50 - 75.25	1.0000	1.0000
L19	60	(Area) CCI-65FP-065125 (H)	74.50 - 74.75	1.0000	1.0000
L19	62	(Area) CCI-65FP-060100 (H)	74.50 - 75.25	1.0000	1.0000
L19	63	(Area) CCI-65FP-060100 (H)	74.50 - 75.25	1.0000	1.0000
L19	65	(Area) CCI-65FP-045100 (H)	74.50 - 75.25	1.0000	1.0000
L19	66	(Area) CCI-65FP-045100 (H)	74.50 - 75.25	1.0000	1.0000
L19	73	PL 1.25x4	74.50 - 75.25	1.0000	1.0000
L19	74	PL 1.25x4	74.50 - 75.25	1.0000	1.0000
L19	75	PL 1.25x4	74.50 - 75.25	1.0000	1.0000
L19	77	PL 1.25x4	74.50 - 75.25	1.0000	1.0000
L19	78	PL 1.25x4	74.50 - 75.25	1.0000	1.0000
L19	79	PL 1.25x4	74.50 - 75.25	1.0000	1.0000
L19	80	PL 1.25x4	74.50 - 75.25	1.0000	1.0000
L20	1	Safety Line 3/8	74.25 - 74.50	1.0000	1.0000
L20	3	CU12PSM9P8XXX(1-3/8)	74.25 - 74.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L20	5	1266A(1/8)	74.25 - 74.50	1.0000	1.0000
L20	6	7983A(ELLIPTICAL)	74.25 - 74.50	1.0000	1.0000
L20	8	3" Flexible Conduit	74.25 - 74.50	1.0000	1.0000
L20	9	HB114-1-0813U4-M5J(1-1/4)	74.25 - 74.50	1.0000	1.0000
L20	11	LDF7-50A(1-5/8)	74.25 - 74.50	1.0000	1.0000
L20	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	74.25 - 74.50	1.0000	1.0000
L20	14	HCS 6X12 6AWG(1-3/8)	74.25 - 74.50	1.0000	1.0000
L20	60	(Area) CCI-65FP-065125 (H)	74.25 - 74.50	1.0000	1.0000
L20	62	(Area) CCI-65FP-060100 (H)	74.25 - 74.50	1.0000	1.0000
L20	63	(Area) CCI-65FP-060100 (H)	74.25 - 74.50	1.0000	1.0000
L20	65	(Area) CCI-65FP-045100 (H)	74.25 - 74.50	1.0000	1.0000
L20	66	(Area) CCI-65FP-045100 (H)	74.25 - 74.50	1.0000	1.0000
L20	73	PL 1.25x4	74.25 - 74.50	1.0000	1.0000
L20	74	PL 1.25x4	74.25 - 74.50	1.0000	1.0000
L20	75	PL 1.25x4	74.25 - 74.50	1.0000	1.0000
L20	77	PL 1.25x4	74.25 - 74.50	1.0000	1.0000
L20	78	PL 1.25x4	74.25 - 74.50	1.0000	1.0000
L20	79	PL 1.25x4	74.25 - 74.50	1.0000	1.0000
L20	80	PL 1.25x4	74.25 - 74.50	1.0000	1.0000
L21	1	Safety Line 3/8	72.00 - 74.25	1.0000	1.0000
L21	3	CU12PSM9P8XXX(1-3/8)	72.00 - 74.25	1.0000	1.0000
L21	5	1266A(1/8)	72.00 - 74.25	1.0000	1.0000
L21	6	7983A(ELLIPTICAL)	72.00 - 74.25	1.0000	1.0000
L21	8	3" Flexible Conduit	72.00 - 74.25	1.0000	1.0000
L21	9	HB114-1-0813U4-M5J(1-1/4)	72.00 - 74.25	1.0000	1.0000
L21	11	LDF7-50A(1-5/8)	72.00 - 74.25	1.0000	1.0000
L21	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	72.00 - 74.25	1.0000	1.0000
L21	14	HCS 6X12 6AWG(1-3/8)	72.00 - 74.25	1.0000	1.0000
L21	60	(Area) CCI-65FP-065125 (H)	72.00 - 74.25	1.0000	1.0000
L21	62	(Area) CCI-65FP-060100 (H)	72.00 - 74.25	1.0000	1.0000
L21	63	(Area) CCI-65FP-060100 (H)	72.00 - 74.25	1.0000	1.0000
L21	65	(Area) CCI-65FP-045100 (H)	72.00 - 74.25	1.0000	1.0000
L21	66	(Area) CCI-65FP-045100 (H)	72.00 - 74.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L21	73	PL 1.25x4	74.00 - 74.25	1.0000	1.0000
L21	74	PL 1.25x4	74.00 - 74.25	1.0000	1.0000
L21	75	PL 1.25x4	73.00 - 74.25	1.0000	1.0000
L21	77	PL 1.25x4	72.00 - 74.25	1.0000	1.0000
L21	78	PL 1.25x4	72.00 - 74.25	1.0000	1.0000
L21	79	PL 1.25x4	72.00 - 74.25	1.0000	1.0000
L21	80	PL 1.25x4	72.00 - 74.25	1.0000	1.0000
L22	1	Safety Line 3/8	71.75 - 72.00	1.0000	1.0000
L22	3	CU12PSM9P8XXX(1-3/8)	71.75 - 72.00	1.0000	1.0000
L22	5	1266A(1/8)	71.75 - 72.00	1.0000	1.0000
L22	6	7983A(ELLIPTICAL)	71.75 - 72.00	1.0000	1.0000
L22	8	3" Flexible Conduit	71.75 - 72.00	1.0000	1.0000
L22	9	HB114-1-0813U4-M5J(1-1/4)	71.75 - 72.00	1.0000	1.0000
L22	11	LDF7-50A(1-5/8)	71.75 - 72.00	1.0000	1.0000
L22	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	71.75 - 72.00	1.0000	1.0000
L22	14	HCS 6X12 6AWG(1-3/8)	71.75 - 72.00	1.0000	1.0000
L22	41	PL 1 x 5	71.75 - 72.00	1.0000	1.0000
L22	42	PL 1 x 5	71.75 - 72.00	1.0000	1.0000
L22	43	PL 1 x 5	71.75 - 72.00	1.0000	1.0000
L22	44	PL 1 x 5	71.75 - 72.00	1.0000	1.0000
L22	56	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	1.0000	1.0000
L22	57	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	1.0000	1.0000
L22	58	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	1.0000	1.0000
L22	60	(Area) CCI-65FP-065125 (H)	71.75 - 72.00	1.0000	1.0000
L22	62	(Area) CCI-65FP-060100 (H)	71.75 - 72.00	1.0000	1.0000
L22	63	(Area) CCI-65FP-060100 (H)	71.75 - 72.00	1.0000	1.0000
L22	65	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	1.0000	1.0000
L22	66	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	1.0000	1.0000
L22	77	PL 1.25x4	71.75 - 72.00	1.0000	1.0000
L22	78	PL 1.25x4	71.75 - 72.00	1.0000	1.0000
L22	79	PL 1.25x4	71.75 - 72.00	1.0000	1.0000
L22	80	PL 1.25x4	71.75 - 72.00	1.0000	1.0000
L23	1	Safety Line 3/8	70.50 - 71.75	1.0000	1.0000
L23	3	CU12PSM9P8XXX(1-3/8)	70.50 - 71.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L23	5	1266A(1/8)	70.50 - 71.75	1.0000	1.0000
L23	6	7983A(ELLIPTICAL)	70.50 - 71.75	1.0000	1.0000
L23	8	3" Flexible Conduit	70.50 - 71.75	1.0000	1.0000
L23	9	HB114-1-0813U4-M5J(1-1/4)	70.50 - 71.75	1.0000	1.0000
L23	11	LDF7-50A(1-5/8)	70.50 - 71.75	1.0000	1.0000
L23	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	70.50 - 71.75	1.0000	1.0000
L23	14	HCS 6X12 6AWG(1-3/8)	70.50 - 71.75	1.0000	1.0000
L23	41	PL 1 x 5	70.50 - 71.75	1.0000	1.0000
L23	42	PL 1 x 5	70.50 - 71.75	1.0000	1.0000
L23	43	PL 1 x 5	70.50 - 71.75	1.0000	1.0000
L23	44	PL 1 x 5	70.50 - 71.75	1.0000	1.0000
L23	56	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	1.0000	1.0000
L23	57	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	1.0000	1.0000
L23	58	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	1.0000	1.0000
L23	60	(Area) CCI-65FP-065125 (H)	70.50 - 71.75	1.0000	1.0000
L23	62	(Area) CCI-65FP-060100 (H)	70.50 - 71.75	1.0000	1.0000
L23	63	(Area) CCI-65FP-060100 (H)	70.50 - 71.75	1.0000	1.0000
L23	65	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	1.0000	1.0000
L23	66	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	1.0000	1.0000
L23	77	PL 1.25x4	70.50 - 71.75	1.0000	1.0000
L23	78	PL 1.25x4	70.50 - 71.75	1.0000	1.0000
L23	79	PL 1.25x4	70.50 - 71.75	1.0000	1.0000
L23	80	PL 1.25x4	70.50 - 71.75	1.0000	1.0000
L24	1	Safety Line 3/8	70.25 - 70.50	1.0000	1.0000
L24	3	CU12PSM9P8XXX(1-3/8)	70.25 - 70.50	1.0000	1.0000
L24	5	1266A(1/8)	70.25 - 70.50	1.0000	1.0000
L24	6	7983A(ELLIPTICAL)	70.25 - 70.50	1.0000	1.0000
L24	8	3" Flexible Conduit	70.25 - 70.50	1.0000	1.0000
L24	9	HB114-1-0813U4-M5J(1-1/4)	70.25 - 70.50	1.0000	1.0000
L24	11	LDF7-50A(1-5/8)	70.25 - 70.50	1.0000	1.0000
L24	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	70.25 - 70.50	1.0000	1.0000
L24	14	HCS 6X12 6AWG(1-3/8)	70.25 - 70.50	1.0000	1.0000
L24	41	PL 1 x 5	70.25 - 70.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L24	42	PL 1 x 5	70.25 - 70.50	1.0000	1.0000
L24	43	PL 1 x 5	70.25 - 70.50	1.0000	1.0000
L24	44	PL 1 x 5	70.25 - 70.50	1.0000	1.0000
L24	56	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	1.0000	1.0000
L24	57	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	1.0000	1.0000
L24	58	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	1.0000	1.0000
L24	60	(Area) CCI-65FP-065125 (H)	70.25 - 70.50	1.0000	1.0000
L24	62	(Area) CCI-65FP-060100 (H)	70.25 - 70.50	1.0000	1.0000
L24	63	(Area) CCI-65FP-060100 (H)	70.25 - 70.50	1.0000	1.0000
L24	65	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	1.0000	1.0000
L24	66	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	1.0000	1.0000
L24	77	PL 1.25x4	70.25 - 70.50	1.0000	1.0000
L24	78	PL 1.25x4	70.25 - 70.50	1.0000	1.0000
L24	79	PL 1.25x4	70.25 - 70.50	1.0000	1.0000
L24	80	PL 1.25x4	70.25 - 70.50	1.0000	1.0000
L25	1	Safety Line 3/8	70.00 - 70.25	1.0000	1.0000
L25	3	CU12PSM9P8XXX(1-3/8)	70.00 - 70.25	1.0000	1.0000
L25	5	1266A(1/8)	70.00 - 70.25	1.0000	1.0000
L25	6	7983A(ELLIPTICAL)	70.00 - 70.25	1.0000	1.0000
L25	8	3" Flexible Conduit	70.00 - 70.25	1.0000	1.0000
L25	9	HB114-1-0813U4-M5J(1-1/4)	70.00 - 70.25	1.0000	1.0000
L25	11	LDF7-50A(1-5/8)	70.00 - 70.25	1.0000	1.0000
L25	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	70.00 - 70.25	1.0000	1.0000
L25	14	HCS 6X12 6AWG(1-3/8)	70.00 - 70.25	1.0000	1.0000
L25	41	PL 1 x 5	70.00 - 70.25	1.0000	1.0000
L25	42	PL 1 x 5	70.00 - 70.25	1.0000	1.0000
L25	43	PL 1 x 5	70.00 - 70.25	1.0000	1.0000
L25	44	PL 1 x 5	70.00 - 70.25	1.0000	1.0000
L25	56	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	1.0000	1.0000
L25	57	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	1.0000	1.0000
L25	58	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	1.0000	1.0000
L25	60	(Area) CCI-65FP-065125 (H)	70.00 - 70.25	1.0000	1.0000
L25	62	(Area) CCI-65FP-060100 (H)	70.00 - 70.25	1.0000	1.0000
L25	63	(Area) CCI-65FP-060100 (H)	70.00 - 70.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L25	65	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	1.0000	1.0000
L25	66	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	1.0000	1.0000
L25	77	PL 1.25x4	70.00 - 70.25	1.0000	1.0000
L25	78	PL 1.25x4	70.00 - 70.25	1.0000	1.0000
L25	79	PL 1.25x4	70.00 - 70.25	1.0000	1.0000
L25	80	PL 1.25x4	70.00 - 70.25	1.0000	1.0000
L26	1	Safety Line 3/8	69.75 - 70.00	1.0000	1.0000
L26	3	CU12PSM9P8XXX(1-3/8)	69.75 - 70.00	1.0000	1.0000
L26	5	1266A(1/8)	69.75 - 70.00	1.0000	1.0000
L26	6	7983A(ELLIPTICAL)	69.75 - 70.00	1.0000	1.0000
L26	8	3" Flexible Conduit	69.75 - 70.00	1.0000	1.0000
L26	9	HB114-1-0813U4-M5J(1-1/4)	69.75 - 70.00	1.0000	1.0000
L26	11	LDF7-50A(1-5/8)	69.75 - 70.00	1.0000	1.0000
L26	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	69.75 - 70.00	1.0000	1.0000
L26	14	HCS 6X12 6AWG(1-3/8)	69.75 - 70.00	1.0000	1.0000
L26	41	PL 1 x 5	69.75 - 70.00	1.0000	1.0000
L26	42	PL 1 x 5	69.75 - 70.00	1.0000	1.0000
L26	43	PL 1 x 5	69.75 - 70.00	1.0000	1.0000
L26	44	PL 1 x 5	69.75 - 70.00	1.0000	1.0000
L26	56	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	1.0000	1.0000
L26	57	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	1.0000	1.0000
L26	58	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	1.0000	1.0000
L26	60	(Area) CCI-65FP-065125 (H)	69.75 - 70.00	1.0000	1.0000
L26	62	(Area) CCI-65FP-060100 (H)	69.75 - 70.00	1.0000	1.0000
L26	63	(Area) CCI-65FP-060100 (H)	69.75 - 70.00	1.0000	1.0000
L26	65	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	1.0000	1.0000
L26	66	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	1.0000	1.0000
L26	77	PL 1.25x4	69.75 - 70.00	1.0000	1.0000
L26	78	PL 1.25x4	69.75 - 70.00	1.0000	1.0000
L26	79	PL 1.25x4	69.75 - 70.00	1.0000	1.0000
L26	80	PL 1.25x4	69.75 - 70.00	1.0000	1.0000
L27	1	Safety Line 3/8	69.50 - 69.75	1.0000	1.0000
L27	3	CU12PSM9P8XXX(1-3/8)	69.50 - 69.75	1.0000	1.0000
L27	5	1266A(1/8)	69.50 - 69.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L27	6	7983A(ELLIPTICAL)	69.50 - 69.75	1.0000	1.0000
L27	8	3" Flexible Conduit	69.50 - 69.75	1.0000	1.0000
L27	9	HB114-1-0813U4-M5J(1-1/4)	69.50 - 69.75	1.0000	1.0000
L27	11	LDF7-50A(1-5/8)	69.50 - 69.75	1.0000	1.0000
L27	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	69.50 - 69.75	1.0000	1.0000
L27	14	HCS 6X12 6AWG(1-3/8)	69.50 - 69.75	1.0000	1.0000
L27	41	PL 1 x 5	69.50 - 69.75	1.0000	1.0000
L27	42	PL 1 x 5	69.50 - 69.75	1.0000	1.0000
L27	43	PL 1 x 5	69.50 - 69.75	1.0000	1.0000
L27	44	PL 1 x 5	69.50 - 69.75	1.0000	1.0000
L27	56	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	1.0000	1.0000
L27	57	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	1.0000	1.0000
L27	58	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	1.0000	1.0000
L27	60	(Area) CCI-65FP-065125 (H)	69.50 - 69.75	1.0000	1.0000
L27	62	(Area) CCI-65FP-060100 (H)	69.50 - 69.75	1.0000	1.0000
L27	63	(Area) CCI-65FP-060100 (H)	69.50 - 69.75	1.0000	1.0000
L27	65	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	1.0000	1.0000
L27	66	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	1.0000	1.0000
L27	77	PL 1.25x4	69.50 - 69.75	1.0000	1.0000
L27	78	PL 1.25x4	69.50 - 69.75	1.0000	1.0000
L27	79	PL 1.25x4	69.50 - 69.75	1.0000	1.0000
L27	80	PL 1.25x4	69.50 - 69.75	1.0000	1.0000
L28	1	Safety Line 3/8	69.25 - 69.50	1.0000	1.0000
L28	3	CU12PSM9P8XXX(1-3/8)	69.25 - 69.50	1.0000	1.0000
L28	5	1266A(1/8)	69.25 - 69.50	1.0000	1.0000
L28	6	7983A(ELLIPTICAL)	69.25 - 69.50	1.0000	1.0000
L28	8	3" Flexible Conduit	69.25 - 69.50	1.0000	1.0000
L28	9	HB114-1-0813U4-M5J(1-1/4)	69.25 - 69.50	1.0000	1.0000
L28	11	LDF7-50A(1-5/8)	69.25 - 69.50	1.0000	1.0000
L28	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	69.25 - 69.50	1.0000	1.0000
L28	14	HCS 6X12 6AWG(1-3/8)	69.25 - 69.50	1.0000	1.0000
L28	41	PL 1 x 5	69.25 - 69.50	1.0000	1.0000
L28	42	PL 1 x 5	69.25 - 69.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L28	43	PL 1 x 5	69.25 - 69.50	1.0000	1.0000
L28	44	PL 1 x 5	69.25 - 69.50	1.0000	1.0000
L28	56	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	1.0000	1.0000
L28	57	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	1.0000	1.0000
L28	58	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	1.0000	1.0000
L28	60	(Area) CCI-65FP-065125 (H)	69.25 - 69.50	1.0000	1.0000
L28	62	(Area) CCI-65FP-060100 (H)	69.25 - 69.50	1.0000	1.0000
L28	63	(Area) CCI-65FP-060100 (H)	69.25 - 69.50	1.0000	1.0000
L28	65	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	1.0000	1.0000
L28	66	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	1.0000	1.0000
L28	77	PL 1.25x4	69.25 - 69.50	1.0000	1.0000
L28	78	PL 1.25x4	69.25 - 69.50	1.0000	1.0000
L28	79	PL 1.25x4	69.25 - 69.50	1.0000	1.0000
L28	80	PL 1.25x4	69.25 - 69.50	1.0000	1.0000
L29	1	Safety Line 3/8	64.25 - 69.25	1.0000	1.0000
L29	3	CU12PSM9P8XXX(1-3/8)	64.25 - 69.25	1.0000	1.0000
L29	5	1266A(1/8)	64.25 - 69.25	1.0000	1.0000
L29	6	7983A(ELLIPTICAL)	64.25 - 69.25	1.0000	1.0000
L29	8	3" Flexible Conduit	64.25 - 69.25	1.0000	1.0000
L29	9	HB114-1-0813U4-M5J(1-1/4)	64.25 - 69.25	1.0000	1.0000
L29	11	LDF7-50A(1-5/8)	64.25 - 69.25	1.0000	1.0000
L29	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	64.25 - 69.25	1.0000	1.0000
L29	14	HCS 6X12 6AWG(1-3/8)	64.25 - 69.25	1.0000	1.0000
L29	41	PL 1 x 5	64.25 - 69.25	1.0000	1.0000
L29	42	PL 1 x 5	64.25 - 69.25	1.0000	1.0000
L29	43	PL 1 x 5	64.25 - 69.25	1.0000	1.0000
L29	44	PL 1 x 5	64.25 - 69.25	1.0000	1.0000
L29	56	(Area) CCI-65FP-045100 (H)	64.25 - 69.25	1.0000	1.0000
L29	57	(Area) CCI-65FP-045100 (H)	64.25 - 69.25	1.0000	1.0000
L29	58	(Area) CCI-65FP-045100 (H)	64.25 - 69.25	1.0000	1.0000
L29	60	(Area) CCI-65FP-065125 (H)	64.25 - 69.25	1.0000	1.0000
L29	62	(Area) CCI-65FP-060100 (H)	67.00 - 69.25	1.0000	1.0000
L29	63	(Area) CCI-65FP-060100 (H)	67.00 - 69.25	1.0000	1.0000
L29	65	(Area) CCI-65FP-045100 (H)	68.00 - 69.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L29	66	(Area) CCI-65FP-045100 (H)	68.00 - 69.25	1.0000	1.0000
L29	77	PL 1.25x4	68.50 - 69.25	1.0000	1.0000
L29	78	PL 1.25x4	68.25 - 69.25	1.0000	1.0000
L29	79	PL 1.25x4	68.25 - 69.25	1.0000	1.0000
L29	80	PL 1.25x4	68.25 - 69.25	1.0000	1.0000
L30	1	Safety Line 3/8	59.25 - 64.25	1.0000	1.0000
L30	3	CU12PSM9P8XXX(1-3/8)	59.25 - 64.25	1.0000	1.0000
L30	5	1266A(1/8)	59.25 - 64.25	1.0000	1.0000
L30	6	7983A(ELLIPTICAL)	59.25 - 64.25	1.0000	1.0000
L30	8	3" Flexible Conduit	59.25 - 64.25	1.0000	1.0000
L30	9	HB114-1-0813U4-M5J(1-1/4)	59.25 - 64.25	1.0000	1.0000
L30	11	LDF7-50A(1-5/8)	59.25 - 64.25	1.0000	1.0000
L30	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	59.25 - 64.25	1.0000	1.0000
L30	14	HCS 6X12 6AWG(1-3/8)	59.25 - 64.25	1.0000	1.0000
L30	41	PL 1 x 5	59.25 - 64.25	1.0000	1.0000
L30	42	PL 1 x 5	59.25 - 64.25	1.0000	1.0000
L30	43	PL 1 x 5	59.25 - 64.25	1.0000	1.0000
L30	44	PL 1 x 5	59.25 - 64.25	1.0000	1.0000
L30	56	(Area) CCI-65FP-045100 (H)	59.25 - 64.25	1.0000	1.0000
L30	57	(Area) CCI-65FP-045100 (H)	59.25 - 64.25	1.0000	1.0000
L30	58	(Area) CCI-65FP-045100 (H)	59.25 - 64.25	1.0000	1.0000
L30	60	(Area) CCI-65FP-065125 (H)	59.25 - 64.25	1.0000	1.0000
L31	1	Safety Line 3/8	56.00 - 59.25	1.0000	1.0000
L31	3	CU12PSM9P8XXX(1-3/8)	56.00 - 59.25	1.0000	1.0000
L31	5	1266A(1/8)	56.00 - 59.25	1.0000	1.0000
L31	6	7983A(ELLIPTICAL)	56.00 - 59.25	1.0000	1.0000
L31	8	3" Flexible Conduit	56.00 - 59.25	1.0000	1.0000
L31	9	HB114-1-0813U4-M5J(1-1/4)	56.00 - 59.25	1.0000	1.0000
L31	11	LDF7-50A(1-5/8)	56.00 - 59.25	1.0000	1.0000
L31	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	56.00 - 59.25	1.0000	1.0000
L31	14	HCS 6X12 6AWG(1-3/8)	56.00 - 59.25	1.0000	1.0000
L31	41	PL 1 x 5	56.00 - 59.25	1.0000	1.0000
L31	42	PL 1 x 5	56.00 - 59.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L31	43	PL 1 x 5	56.00 - 59.25	1.0000	1.0000
L31	44	PL 1 x 5	56.00 - 59.25	1.0000	1.0000
L31	56	(Area) CCI-65FP-045100 (H)	56.00 - 59.25	1.0000	1.0000
L31	57	(Area) CCI-65FP-045100 (H)	56.00 - 59.25	1.0000	1.0000
L31	58	(Area) CCI-65FP-045100 (H)	56.00 - 59.25	1.0000	1.0000
L31	60	(Area) CCI-65FP-065125 (H)	56.00 - 59.25	1.0000	1.0000
L31	68	(Area) CCI-65FP-045100 (H)	56.00 - 57.50	1.0000	1.0000
L31	69	(Area) CCI-65FP-045100 (H)	56.00 - 57.50	1.0000	1.0000
L31	70	(Area) CCI-65FP-045100 (H)	56.00 - 57.50	1.0000	1.0000
L31	71	(Area) CCI-65FP-045100 (H)	56.00 - 57.25	1.0000	1.0000
L32	1	Safety Line 3/8	55.75 - 56.00	1.0000	1.0000
L32	3	CU12PSM9P8XXX(1-3/8)	55.75 - 56.00	1.0000	1.0000
L32	5	1266A(1/8)	55.75 - 56.00	1.0000	1.0000
L32	6	7983A(ELLIPTICAL)	55.75 - 56.00	1.0000	1.0000
L32	8	3" Flexible Conduit	55.75 - 56.00	1.0000	1.0000
L32	9	HB114-1-0813U4-M5J(1-1/4)	55.75 - 56.00	1.0000	1.0000
L32	11	LDF7-50A(1-5/8)	55.75 - 56.00	1.0000	1.0000
L32	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	55.75 - 56.00	1.0000	1.0000
L32	14	HCS 6X12 6AWG(1-3/8)	55.75 - 56.00	1.0000	1.0000
L32	26	C6x10.5	55.75 - 56.00	1.0000	1.0000
L32	27	C6x10.5	55.75 - 56.00	1.0000	1.0000
L32	28	C6x10.5	55.75 - 56.00	1.0000	1.0000
L32	29	C6x10.5	55.75 - 56.00	1.0000	1.0000
L32	41	PL 1 x 5	55.75 - 56.00	1.0000	1.0000
L32	42	PL 1 x 5	55.75 - 56.00	1.0000	1.0000
L32	43	PL 1 x 5	55.75 - 56.00	1.0000	1.0000
L32	44	PL 1 x 5	55.75 - 56.00	1.0000	1.0000
L32	56	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	1.0000	1.0000
L32	57	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	1.0000	1.0000
L32	58	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	1.0000	1.0000
L32	60	(Area) CCI-65FP-065125 (H)	55.75 - 56.00	1.0000	1.0000
L32	68	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	1.0000	1.0000
L32	69	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	1.0000	1.0000
L32	70	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L32	71	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	1.0000	1.0000
L33	1	Safety Line 3/8	55.50 - 55.75	1.0000	1.0000
L33	3	CU12PSM9P8XXX(1-3/8)	55.50 - 55.75	1.0000	1.0000
L33	5	1266A(1/8)	55.50 - 55.75	1.0000	1.0000
L33	6	7983A(ELLIPTICAL)	55.50 - 55.75	1.0000	1.0000
L33	8	3" Flexible Conduit	55.50 - 55.75	1.0000	1.0000
L33	9	HB114-1-0813U4-M5J(1-1/4)	55.50 - 55.75	1.0000	1.0000
L33	11	LDF7-50A(1-5/8)	55.50 - 55.75	1.0000	1.0000
L33	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	55.50 - 55.75	1.0000	1.0000
L33	14	HCS 6X12 6AWG(1-3/8)	55.50 - 55.75	1.0000	1.0000
L33	26	C6x10.5	55.50 - 55.75	1.0000	1.0000
L33	27	C6x10.5	55.50 - 55.75	1.0000	1.0000
L33	28	C6x10.5	55.50 - 55.75	1.0000	1.0000
L33	29	C6x10.5	55.50 - 55.75	1.0000	1.0000
L33	41	PL 1 x 5	55.50 - 55.75	1.0000	1.0000
L33	42	PL 1 x 5	55.50 - 55.75	1.0000	1.0000
L33	43	PL 1 x 5	55.50 - 55.75	1.0000	1.0000
L33	44	PL 1 x 5	55.50 - 55.75	1.0000	1.0000
L33	56	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	1.0000	1.0000
L33	57	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	1.0000	1.0000
L33	58	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	1.0000	1.0000
L33	60	(Area) CCI-65FP-065125 (H)	55.50 - 55.75	1.0000	1.0000
L33	68	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	1.0000	1.0000
L33	69	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	1.0000	1.0000
L33	70	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	1.0000	1.0000
L33	71	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	1.0000	1.0000
L34	1	Safety Line 3/8	55.25 - 55.50	1.0000	1.0000
L34	3	CU12PSM9P8XXX(1-3/8)	55.25 - 55.50	1.0000	1.0000
L34	5	1266A(1/8)	55.25 - 55.50	1.0000	1.0000
L34	6	7983A(ELLIPTICAL)	55.25 - 55.50	1.0000	1.0000
L34	8	3" Flexible Conduit	55.25 - 55.50	1.0000	1.0000
L34	9	HB114-1-0813U4-M5J(1-1/4)	55.25 - 55.50	1.0000	1.0000
L34	11	LDF7-50A(1-5/8)	55.25 - 55.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L34	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	55.25 - 55.50	1.0000	1.0000
L34	14	HCS 6X12 6AWG(1-3/8)	55.25 - 55.50	1.0000	1.0000
L34	26	C6x10.5	55.25 - 55.50	1.0000	1.0000
L34	27	C6x10.5	55.25 - 55.50	1.0000	1.0000
L34	28	C6x10.5	55.25 - 55.50	1.0000	1.0000
L34	29	C6x10.5	55.25 - 55.50	1.0000	1.0000
L34	41	PL 1 x 5	55.25 - 55.50	1.0000	1.0000
L34	42	PL 1 x 5	55.25 - 55.50	1.0000	1.0000
L34	43	PL 1 x 5	55.25 - 55.50	1.0000	1.0000
L34	44	PL 1 x 5	55.25 - 55.50	1.0000	1.0000
L34	56	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	1.0000	1.0000
L34	57	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	1.0000	1.0000
L34	58	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	1.0000	1.0000
L34	60	(Area) CCI-65FP-065125 (H)	55.25 - 55.50	1.0000	1.0000
L34	68	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	1.0000	1.0000
L34	69	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	1.0000	1.0000
L34	70	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	1.0000	1.0000
L34	71	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	1.0000	1.0000
L35	1	Safety Line 3/8	54.00 - 55.25	1.0000	1.0000
L35	3	CU12PSM9P8XXX(1-3/8)	54.00 - 55.25	1.0000	1.0000
L35	5	1266A(1/8)	54.00 - 55.25	1.0000	1.0000
L35	6	7983A(ELLIPTICAL)	54.00 - 55.25	1.0000	1.0000
L35	8	3" Flexible Conduit	54.00 - 55.25	1.0000	1.0000
L35	9	HB114-1-0813U4-M5J(1- 1/4)	54.00 - 55.25	1.0000	1.0000
L35	11	LDF7-50A(1-5/8)	54.00 - 55.25	1.0000	1.0000
L35	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	54.00 - 55.25	1.0000	1.0000
L35	14	HCS 6X12 6AWG(1-3/8)	54.00 - 55.25	1.0000	1.0000
L35	26	C6x10.5	54.00 - 55.25	1.0000	1.0000
L35	27	C6x10.5	54.00 - 55.25	1.0000	1.0000
L35	28	C6x10.5	54.00 - 55.25	1.0000	1.0000
L35	29	C6x10.5	54.00 - 55.25	1.0000	1.0000
L35	41	PL 1 x 5	54.00 - 55.25	1.0000	1.0000
L35	42	PL 1 x 5	54.00 - 55.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L35	43	PL 1 x 5	54.00 - 55.25	1.0000	1.0000
L35	44	PL 1 x 5	54.00 - 55.25	1.0000	1.0000
L35	56	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	1.0000	1.0000
L35	57	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	1.0000	1.0000
L35	58	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	1.0000	1.0000
L35	60	(Area) CCI-65FP-065125 (H)	54.00 - 55.25	1.0000	1.0000
L35	68	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	1.0000	1.0000
L35	69	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	1.0000	1.0000
L35	70	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	1.0000	1.0000
L35	71	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	1.0000	1.0000
L36	1	Safety Line 3/8	53.75 - 54.00	1.0000	1.0000
L36	3	CU12PSM9P8XXX(1-3/8)	53.75 - 54.00	1.0000	1.0000
L36	5	1266A(1/8)	53.75 - 54.00	1.0000	1.0000
L36	6	7983A(ELLIPTICAL)	53.75 - 54.00	1.0000	1.0000
L36	8	3" Flexible Conduit	53.75 - 54.00	1.0000	1.0000
L36	9	HB114-1-0813U4-M5J(1-1/4)	53.75 - 54.00	1.0000	1.0000
L36	11	LDF7-50A(1-5/8)	53.75 - 54.00	1.0000	1.0000
L36	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	53.75 - 54.00	1.0000	1.0000
L36	14	HCS 6X12 6AWG(1-3/8)	53.75 - 54.00	1.0000	1.0000
L36	26	C6x10.5	53.75 - 54.00	1.0000	1.0000
L36	27	C6x10.5	53.75 - 54.00	1.0000	1.0000
L36	28	C6x10.5	53.75 - 54.00	1.0000	1.0000
L36	29	C6x10.5	53.75 - 54.00	1.0000	1.0000
L36	41	PL 1 x 5	53.75 - 54.00	1.0000	1.0000
L36	42	PL 1 x 5	53.75 - 54.00	1.0000	1.0000
L36	43	PL 1 x 5	53.75 - 54.00	1.0000	1.0000
L36	44	PL 1 x 5	53.75 - 54.00	1.0000	1.0000
L36	56	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	1.0000	1.0000
L36	57	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	1.0000	1.0000
L36	58	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	1.0000	1.0000
L36	60	(Area) CCI-65FP-065125 (H)	53.75 - 54.00	1.0000	1.0000
L36	68	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	1.0000	1.0000
L36	69	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	1.0000	1.0000
L36	70	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L36	71	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	1.0000	1.0000
L37	1	Safety Line 3/8	53.50 - 53.75	1.0000	1.0000
L37	3	CU12PSM9P8XXX(1-3/8)	53.50 - 53.75	1.0000	1.0000
L37	5	1266A(1/8)	53.50 - 53.75	1.0000	1.0000
L37	6	7983A(ELLIPTICAL)	53.50 - 53.75	1.0000	1.0000
L37	8	3" Flexible Conduit	53.50 - 53.75	1.0000	1.0000
L37	9	HB114-1-0813U4-M5J(1-1/4)	53.50 - 53.75	1.0000	1.0000
L37	11	LDF7-50A(1-5/8)	53.50 - 53.75	1.0000	1.0000
L37	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	53.50 - 53.75	1.0000	1.0000
L37	14	HCS 6X12 6AWG(1-3/8)	53.50 - 53.75	1.0000	1.0000
L37	26	C6x10.5	53.50 - 53.75	1.0000	1.0000
L37	27	C6x10.5	53.50 - 53.75	1.0000	1.0000
L37	28	C6x10.5	53.50 - 53.75	1.0000	1.0000
L37	29	C6x10.5	53.50 - 53.75	1.0000	1.0000
L37	41	PL 1 x 5	53.50 - 53.75	1.0000	1.0000
L37	42	PL 1 x 5	53.50 - 53.75	1.0000	1.0000
L37	43	PL 1 x 5	53.50 - 53.75	1.0000	1.0000
L37	44	PL 1 x 5	53.50 - 53.75	1.0000	1.0000
L37	56	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	1.0000	1.0000
L37	57	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	1.0000	1.0000
L37	58	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	1.0000	1.0000
L37	60	(Area) CCI-65FP-065125 (H)	53.50 - 53.75	1.0000	1.0000
L37	68	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	1.0000	1.0000
L37	69	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	1.0000	1.0000
L37	70	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	1.0000	1.0000
L37	71	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	1.0000	1.0000
L38	1	Safety Line 3/8	53.25 - 53.50	1.0000	1.0000
L38	3	CU12PSM9P8XXX(1-3/8)	53.25 - 53.50	1.0000	1.0000
L38	5	1266A(1/8)	53.25 - 53.50	1.0000	1.0000
L38	6	7983A(ELLIPTICAL)	53.25 - 53.50	1.0000	1.0000
L38	8	3" Flexible Conduit	53.25 - 53.50	1.0000	1.0000
L38	9	HB114-1-0813U4-M5J(1-1/4)	53.25 - 53.50	1.0000	1.0000
L38	11	LDF7-50A(1-5/8)	53.25 - 53.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L38	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	53.25 - 53.50	1.0000	1.0000
L38	14	HCS 6X12 6AWG(1-3/8)	53.25 - 53.50	1.0000	1.0000
L38	26	C6x10.5	53.25 - 53.50	1.0000	1.0000
L38	27	C6x10.5	53.25 - 53.50	1.0000	1.0000
L38	28	C6x10.5	53.25 - 53.50	1.0000	1.0000
L38	29	C6x10.5	53.25 - 53.50	1.0000	1.0000
L38	41	PL 1 x 5	53.25 - 53.50	1.0000	1.0000
L38	42	PL 1 x 5	53.25 - 53.50	1.0000	1.0000
L38	43	PL 1 x 5	53.25 - 53.50	1.0000	1.0000
L38	44	PL 1 x 5	53.25 - 53.50	1.0000	1.0000
L38	56	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	1.0000	1.0000
L38	57	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	1.0000	1.0000
L38	58	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	1.0000	1.0000
L38	60	(Area) CCI-65FP-065125 (H)	53.25 - 53.50	1.0000	1.0000
L38	68	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	1.0000	1.0000
L38	69	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	1.0000	1.0000
L38	70	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	1.0000	1.0000
L38	71	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	1.0000	1.0000
L39	1	Safety Line 3/8	53.00 - 53.25	1.0000	1.0000
L39	3	CU12PSM9P8XXX(1-3/8)	53.00 - 53.25	1.0000	1.0000
L39	5	1266A(1/8)	53.00 - 53.25	1.0000	1.0000
L39	6	7983A(ELLIPTICAL)	53.00 - 53.25	1.0000	1.0000
L39	8	3" Flexible Conduit	53.00 - 53.25	1.0000	1.0000
L39	9	HB114-1-0813U4-M5J(1- 1/4)	53.00 - 53.25	1.0000	1.0000
L39	11	LDF7-50A(1-5/8)	53.00 - 53.25	1.0000	1.0000
L39	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	53.00 - 53.25	1.0000	1.0000
L39	14	HCS 6X12 6AWG(1-3/8)	53.00 - 53.25	1.0000	1.0000
L39	26	C6x10.5	53.00 - 53.25	1.0000	1.0000
L39	27	C6x10.5	53.00 - 53.25	1.0000	1.0000
L39	28	C6x10.5	53.00 - 53.25	1.0000	1.0000
L39	29	C6x10.5	53.00 - 53.25	1.0000	1.0000
L39	41	PL 1 x 5	53.00 - 53.25	1.0000	1.0000
L39	42	PL 1 x 5	53.00 - 53.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L39	43	PL 1 x 5	53.00 - 53.25	1.0000	1.0000
L39	44	PL 1 x 5	53.00 - 53.25	1.0000	1.0000
L39	56	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	1.0000	1.0000
L39	57	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	1.0000	1.0000
L39	58	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	1.0000	1.0000
L39	60	(Area) CCI-65FP-065125 (H)	53.00 - 53.25	1.0000	1.0000
L39	68	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	1.0000	1.0000
L39	69	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	1.0000	1.0000
L39	70	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	1.0000	1.0000
L39	71	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	1.0000	1.0000
L40	1	Safety Line 3/8	48.00 - 53.00	1.0000	1.0000
L40	3	CU12PSM9P8XXX(1-3/8)	48.00 - 53.00	1.0000	1.0000
L40	5	1266A(1/8)	48.00 - 53.00	1.0000	1.0000
L40	6	7983A(ELLIPTICAL)	48.00 - 53.00	1.0000	1.0000
L40	8	3" Flexible Conduit	48.00 - 53.00	1.0000	1.0000
L40	9	HB114-1-0813U4-M5J(1-1/4)	48.00 - 53.00	1.0000	1.0000
L40	11	LDF7-50A(1-5/8)	48.00 - 53.00	1.0000	1.0000
L40	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	48.00 - 53.00	1.0000	1.0000
L40	14	HCS 6X12 6AWG(1-3/8)	48.00 - 53.00	1.0000	1.0000
L40	26	C6x10.5	48.00 - 53.00	1.0000	1.0000
L40	27	C6x10.5	48.00 - 53.00	1.0000	1.0000
L40	28	C6x10.5	48.00 - 53.00	1.0000	1.0000
L40	29	C6x10.5	48.00 - 53.00	1.0000	1.0000
L40	41	PL 1 x 5	48.00 - 53.00	1.0000	1.0000
L40	42	PL 1 x 5	48.00 - 53.00	1.0000	1.0000
L40	43	PL 1 x 5	48.00 - 53.00	1.0000	1.0000
L40	44	PL 1 x 5	48.00 - 53.00	1.0000	1.0000
L40	56	(Area) CCI-65FP-045100 (H)	52.00 - 53.00	1.0000	1.0000
L40	57	(Area) CCI-65FP-045100 (H)	52.00 - 53.00	1.0000	1.0000
L40	58	(Area) CCI-65FP-045100 (H)	52.00 - 53.00	1.0000	1.0000
L40	60	(Area) CCI-65FP-065125 (H)	50.50 - 53.00	1.0000	1.0000
L40	68	(Area) CCI-65FP-045100 (H)	48.00 - 53.00	1.0000	1.0000
L40	69	(Area) CCI-65FP-045100 (H)	48.00 - 53.00	1.0000	1.0000
L40	70	(Area) CCI-65FP-045100 (H)	48.00 - 53.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L40	71	(Area) CCI-65FP-045100 (H)	48.00 - 53.00	1.0000	1.0000
L41	1	Safety Line 3/8	39.75 - 48.00	1.0000	1.0000
L41	3	CU12PSM9P8XXX(1-3/8)	39.75 - 48.00	1.0000	1.0000
L41	5	1266A(1/8)	39.75 - 48.00	1.0000	1.0000
L41	6	7983A(ELLIPTICAL)	39.75 - 48.00	1.0000	1.0000
L41	8	3" Flexible Conduit	39.75 - 48.00	1.0000	1.0000
L41	9	HB114-1-0813U4-M5J(1-1/4)	39.75 - 48.00	1.0000	1.0000
L41	11	LDF7-50A(1-5/8)	39.75 - 48.00	1.0000	1.0000
L41	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	39.75 - 48.00	1.0000	1.0000
L41	14	HCS 6X12 6AWG(1-3/8)	39.75 - 48.00	1.0000	1.0000
L41	26	C6x10.5	39.75 - 48.00	1.0000	1.0000
L41	27	C6x10.5	39.75 - 48.00	1.0000	1.0000
L41	28	C6x10.5	39.75 - 48.00	1.0000	1.0000
L41	29	C6x10.5	39.75 - 48.00	1.0000	1.0000
L41	41	PL 1 x 5	39.75 - 48.00	1.0000	1.0000
L41	42	PL 1 x 5	39.75 - 48.00	1.0000	1.0000
L41	43	PL 1 x 5	39.75 - 48.00	1.0000	1.0000
L41	44	PL 1 x 5	39.75 - 48.00	1.0000	1.0000
L41	51	(Area) Aero MP3-03 (H)	39.75 - 45.42	1.0000	1.0000
L41	52	(Area) Aero MP3-03 (H)	39.75 - 45.42	1.0000	1.0000
L41	53	(Area) Aero MP3-03 (H)	39.75 - 45.42	1.0000	1.0000
L41	54	(Area) Aero MP3-03 (H)	39.75 - 45.42	1.0000	1.0000
L41	68	(Area) CCI-65FP-045100 (H)	42.50 - 48.00	1.0000	1.0000
L41	69	(Area) CCI-65FP-045100 (H)	42.50 - 48.00	1.0000	1.0000
L41	70	(Area) CCI-65FP-045100 (H)	42.50 - 48.00	1.0000	1.0000
L41	71	(Area) CCI-65FP-045100 (H)	42.25 - 48.00	1.0000	1.0000
L42	1	Safety Line 3/8	38.75 - 39.75	1.0000	1.0000
L42	3	CU12PSM9P8XXX(1-3/8)	38.75 - 39.75	1.0000	1.0000
L42	5	1266A(1/8)	38.75 - 39.75	1.0000	1.0000
L42	6	7983A(ELLIPTICAL)	38.75 - 39.75	1.0000	1.0000
L42	8	3" Flexible Conduit	38.75 - 39.75	1.0000	1.0000
L42	9	HB114-1-0813U4-M5J(1-1/4)	38.75 - 39.75	1.0000	1.0000
L42	11	LDF7-50A(1-5/8)	38.75 - 39.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L42	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	38.75 - 39.75	1.0000	1.0000
L42	14	HCS 6X12 6AWG(1-3/8)	38.75 - 39.75	1.0000	1.0000
L42	26	C6x10.5	38.75 - 39.75	1.0000	1.0000
L42	27	C6x10.5	38.75 - 39.75	1.0000	1.0000
L42	28	C6x10.5	38.75 - 39.75	1.0000	1.0000
L42	29	C6x10.5	38.75 - 39.75	1.0000	1.0000
L42	41	PL 1 x 5	38.75 - 39.75	1.0000	1.0000
L42	42	PL 1 x 5	38.75 - 39.75	1.0000	1.0000
L42	43	PL 1 x 5	38.75 - 39.75	1.0000	1.0000
L42	44	PL 1 x 5	38.75 - 39.75	1.0000	1.0000
L42	51	(Area) Aero MP3-03 (H)	38.75 - 39.75	1.0000	1.0000
L42	52	(Area) Aero MP3-03 (H)	38.75 - 39.75	1.0000	1.0000
L42	53	(Area) Aero MP3-03 (H)	38.75 - 39.75	1.0000	1.0000
L42	54	(Area) Aero MP3-03 (H)	38.75 - 39.75	1.0000	1.0000
L43	1	Safety Line 3/8	34.75 - 38.75	1.0000	1.0000
L43	3	CU12PSM9P8XXX(1-3/8)	34.75 - 38.75	1.0000	1.0000
L43	5	1266A(1/8)	34.75 - 38.75	1.0000	1.0000
L43	6	7983A(ELLIPTICAL)	34.75 - 38.75	1.0000	1.0000
L43	8	3" Flexible Conduit	34.75 - 38.75	1.0000	1.0000
L43	9	HB114-1-0813U4-M5J(1- 1/4)	34.75 - 38.75	1.0000	1.0000
L43	11	LDF7-50A(1-5/8)	34.75 - 38.75	1.0000	1.0000
L43	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	34.75 - 38.75	1.0000	1.0000
L43	14	HCS 6X12 6AWG(1-3/8)	34.75 - 38.75	1.0000	1.0000
L43	26	C6x10.5	34.75 - 38.75	1.0000	1.0000
L43	27	C6x10.5	34.75 - 38.75	1.0000	1.0000
L43	28	C6x10.5	34.75 - 38.75	1.0000	1.0000
L43	29	C6x10.5	34.75 - 38.75	1.0000	1.0000
L43	36	PL 1 x 5	34.75 - 37.00	1.0000	1.0000
L43	37	PL 1 x 5	34.75 - 37.00	1.0000	1.0000
L43	38	PL 1 x 5	34.75 - 37.00	1.0000	1.0000
L43	39	PL 1 x 5	34.75 - 37.00	1.0000	1.0000
L43	41	PL 1 x 5	34.75 - 38.75	1.0000	1.0000
L43	42	PL 1 x 5	34.75 - 38.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L43	43	PL 1 x 5	34.75 - 38.75	1.0000	1.0000
L43	44	PL 1 x 5	34.75 - 38.75	1.0000	1.0000
L43	51	(Area) Aero MP3-03 (H)	34.75 - 38.75	1.0000	1.0000
L43	52	(Area) Aero MP3-03 (H)	34.75 - 38.75	1.0000	1.0000
L43	53	(Area) Aero MP3-03 (H)	34.75 - 38.75	1.0000	1.0000
L43	54	(Area) Aero MP3-03 (H)	34.75 - 38.75	1.0000	1.0000
L44	1	Safety Line 3/8	34.50 - 34.75	1.0000	1.0000
L44	3	CU12PSM9P8XXX(1-3/8)	34.50 - 34.75	1.0000	1.0000
L44	5	1266A(1/8)	34.50 - 34.75	1.0000	1.0000
L44	6	7983A(ELLIPTICAL)	34.50 - 34.75	1.0000	1.0000
L44	8	3" Flexible Conduit	34.50 - 34.75	1.0000	1.0000
L44	9	HB114-1-0813U4-M5J(1-1/4)	34.50 - 34.75	1.0000	1.0000
L44	11	LDF7-50A(1-5/8)	34.50 - 34.75	1.0000	1.0000
L44	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	34.50 - 34.75	1.0000	1.0000
L44	14	HCS 6X12 6AWG(1-3/8)	34.50 - 34.75	1.0000	1.0000
L44	26	C6x10.5	34.50 - 34.75	1.0000	1.0000
L44	27	C6x10.5	34.50 - 34.75	1.0000	1.0000
L44	28	C6x10.5	34.50 - 34.75	1.0000	1.0000
L44	29	C6x10.5	34.50 - 34.75	1.0000	1.0000
L44	36	PL 1 x 5	34.50 - 34.75	1.0000	1.0000
L44	37	PL 1 x 5	34.50 - 34.75	1.0000	1.0000
L44	38	PL 1 x 5	34.50 - 34.75	1.0000	1.0000
L44	39	PL 1 x 5	34.50 - 34.75	1.0000	1.0000
L44	41	PL 1 x 5	34.50 - 34.75	1.0000	1.0000
L44	42	PL 1 x 5	34.50 - 34.75	1.0000	1.0000
L44	43	PL 1 x 5	34.50 - 34.75	1.0000	1.0000
L44	44	PL 1 x 5	34.50 - 34.75	1.0000	1.0000
L44	51	(Area) Aero MP3-03 (H)	34.50 - 34.75	1.0000	1.0000
L44	52	(Area) Aero MP3-03 (H)	34.50 - 34.75	1.0000	1.0000
L44	53	(Area) Aero MP3-03 (H)	34.50 - 34.75	1.0000	1.0000
L44	54	(Area) Aero MP3-03 (H)	34.50 - 34.75	1.0000	1.0000
L45	1	Safety Line 3/8	33.75 - 34.50	1.0000	1.0000
L45	3	CU12PSM9P8XXX(1-3/8)	33.75 - 34.50	1.0000	1.0000
L45	5	1266A(1/8)	33.75 - 34.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L45	6	7983A(ELLIPTICAL)	33.75 - 34.50	1.0000	1.0000
L45	8	3" Flexible Conduit	33.75 - 34.50	1.0000	1.0000
L45	9	HB114-1-0813U4-M5J(1-1/4)	33.75 - 34.50	1.0000	1.0000
L45	11	LDF7-50A(1-5/8)	33.75 - 34.50	1.0000	1.0000
L45	13	MLE Hybrid 9Power/18Fiber RL 2(1-5/8")	33.75 - 34.50	1.0000	1.0000
L45	14	HCS 6X12 6AWG(1-3/8)	33.75 - 34.50	1.0000	1.0000
L45	26	C6x10.5	33.75 - 34.50	1.0000	1.0000
L45	27	C6x10.5	33.75 - 34.50	1.0000	1.0000
L45	28	C6x10.5	33.75 - 34.50	1.0000	1.0000
L45	29	C6x10.5	33.75 - 34.50	1.0000	1.0000
L45	36	PL 1 x 5	33.75 - 34.50	1.0000	1.0000
L45	37	PL 1 x 5	33.75 - 34.50	1.0000	1.0000
L45	38	PL 1 x 5	33.75 - 34.50	1.0000	1.0000
L45	39	PL 1 x 5	33.75 - 34.50	1.0000	1.0000
L45	41	PL 1 x 5	33.75 - 34.50	1.0000	1.0000
L45	42	PL 1 x 5	33.75 - 34.50	1.0000	1.0000
L45	43	PL 1 x 5	33.75 - 34.50	1.0000	1.0000
L45	44	PL 1 x 5	33.75 - 34.50	1.0000	1.0000
L45	51	(Area) Aero MP3-03 (H)	33.75 - 34.50	1.0000	1.0000
L45	52	(Area) Aero MP3-03 (H)	33.75 - 34.50	1.0000	1.0000
L45	53	(Area) Aero MP3-03 (H)	33.75 - 34.50	1.0000	1.0000
L45	54	(Area) Aero MP3-03 (H)	33.75 - 34.50	1.0000	1.0000
L46	1	Safety Line 3/8	33.50 - 33.75	1.0000	1.0000
L46	3	CU12PSM9P8XXX(1-3/8)	33.50 - 33.75	1.0000	1.0000
L46	5	1266A(1/8)	33.50 - 33.75	1.0000	1.0000
L46	6	7983A(ELLIPTICAL)	33.50 - 33.75	1.0000	1.0000
L46	8	3" Flexible Conduit	33.50 - 33.75	1.0000	1.0000
L46	9	HB114-1-0813U4-M5J(1-1/4)	33.50 - 33.75	1.0000	1.0000
L46	11	LDF7-50A(1-5/8)	33.50 - 33.75	1.0000	1.0000
L46	13	MLE Hybrid 9Power/18Fiber RL 2(1-5/8")	33.50 - 33.75	1.0000	1.0000
L46	14	HCS 6X12 6AWG(1-3/8)	33.50 - 33.75	1.0000	1.0000
L46	26	C6x10.5	33.50 - 33.75	1.0000	1.0000
L46	27	C6x10.5	33.50 - 33.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L46	28	C6x10.5	33.50 - 33.75	1.0000	1.0000
L46	29	C6x10.5	33.50 - 33.75	1.0000	1.0000
L46	36	PL 1 x 5	33.50 - 33.75	1.0000	1.0000
L46	37	PL 1 x 5	33.50 - 33.75	1.0000	1.0000
L46	38	PL 1 x 5	33.50 - 33.75	1.0000	1.0000
L46	39	PL 1 x 5	33.50 - 33.75	1.0000	1.0000
L46	41	PL 1 x 5	33.50 - 33.75	1.0000	1.0000
L46	42	PL 1 x 5	33.50 - 33.75	1.0000	1.0000
L46	43	PL 1 x 5	33.50 - 33.75	1.0000	1.0000
L46	44	PL 1 x 5	33.50 - 33.75	1.0000	1.0000
L46	51	(Area) Aero MP3-03 (H)	33.50 - 33.75	1.0000	1.0000
L46	52	(Area) Aero MP3-03 (H)	33.50 - 33.75	1.0000	1.0000
L46	53	(Area) Aero MP3-03 (H)	33.50 - 33.75	1.0000	1.0000
L46	54	(Area) Aero MP3-03 (H)	33.50 - 33.75	1.0000	1.0000
L47	1	Safety Line 3/8	28.50 - 33.50	1.0000	1.0000
L47	3	CU12PSM9P8XXX(1-3/8)	28.50 - 33.50	1.0000	1.0000
L47	5	1266A(1/8)	28.50 - 33.50	1.0000	1.0000
L47	6	7983A(ELLIPTICAL)	28.50 - 33.50	1.0000	1.0000
L47	8	3" Flexible Conduit	28.50 - 33.50	1.0000	1.0000
L47	9	HB114-1-0813U4-M5J(1-1/4)	28.50 - 33.50	1.0000	1.0000
L47	11	LDF7-50A(1-5/8)	28.50 - 33.50	1.0000	1.0000
L47	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	28.50 - 33.50	1.0000	1.0000
L47	14	HCS 6X12 6AWG(1-3/8)	28.50 - 33.50	1.0000	1.0000
L47	26	C6x10.5	28.50 - 33.50	1.0000	1.0000
L47	27	C6x10.5	28.50 - 33.50	1.0000	1.0000
L47	28	C6x10.5	28.50 - 33.50	1.0000	1.0000
L47	29	C6x10.5	28.50 - 33.50	1.0000	1.0000
L47	36	PL 1 x 5	28.50 - 33.50	1.0000	1.0000
L47	37	PL 1 x 5	28.50 - 33.50	1.0000	1.0000
L47	38	PL 1 x 5	28.50 - 33.50	1.0000	1.0000
L47	39	PL 1 x 5	28.50 - 33.50	1.0000	1.0000
L47	41	PL 1 x 5	31.50 - 33.50	1.0000	1.0000
L47	42	PL 1 x 5	31.50 - 33.50	1.0000	1.0000
L47	43	PL 1 x 5	31.50 - 33.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L47	44	PL 1 x 5	31.50 - 33.50	1.0000	1.0000
L47	51	(Area) Aero MP3-03 (H)	28.50 - 33.50	1.0000	1.0000
L47	52	(Area) Aero MP3-03 (H)	28.50 - 33.50	1.0000	1.0000
L47	53	(Area) Aero MP3-03 (H)	28.50 - 33.50	1.0000	1.0000
L47	54	(Area) Aero MP3-03 (H)	28.50 - 33.50	1.0000	1.0000
L48	1	Safety Line 3/8	24.00 - 28.50	1.0000	1.0000
L48	3	CU12PSM9P8XXX(1-3/8)	24.00 - 28.50	1.0000	1.0000
L48	5	1266A(1/8)	24.00 - 28.50	1.0000	1.0000
L48	6	7983A(ELLIPTICAL)	24.00 - 28.50	1.0000	1.0000
L48	8	3" Flexible Conduit	24.00 - 28.50	1.0000	1.0000
L48	9	HB114-1-0813U4-M5J(1-1/4)	24.00 - 28.50	1.0000	1.0000
L48	11	LDF7-50A(1-5/8)	24.00 - 28.50	1.0000	1.0000
L48	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	24.00 - 28.50	1.0000	1.0000
L48	14	HCS 6X12 6AWG(1-3/8)	24.00 - 28.50	1.0000	1.0000
L48	26	C6x10.5	24.00 - 28.50	1.0000	1.0000
L48	27	C6x10.5	24.00 - 28.50	1.0000	1.0000
L48	28	C6x10.5	24.00 - 28.50	1.0000	1.0000
L48	29	C6x10.5	24.00 - 28.50	1.0000	1.0000
L48	31	(Area) Aero MP3-04 (H)	24.00 - 25.42	1.0000	1.0000
L48	32	(Area) Aero MP3-04 (H)	24.00 - 25.42	1.0000	1.0000
L48	33	(Area) Aero MP3-04 (H)	24.00 - 25.42	1.0000	1.0000
L48	34	(Area) Aero MP3-04 (H)	24.00 - 25.42	1.0000	1.0000
L48	36	PL 1 x 5	24.00 - 28.50	1.0000	1.0000
L48	37	PL 1 x 5	24.00 - 28.50	1.0000	1.0000
L48	38	PL 1 x 5	24.00 - 28.50	1.0000	1.0000
L48	39	PL 1 x 5	24.00 - 28.50	1.0000	1.0000
L48	51	(Area) Aero MP3-03 (H)	25.42 - 28.50	1.0000	1.0000
L48	52	(Area) Aero MP3-03 (H)	25.42 - 28.50	1.0000	1.0000
L48	53	(Area) Aero MP3-03 (H)	25.42 - 28.50	1.0000	1.0000
L48	54	(Area) Aero MP3-03 (H)	25.42 - 28.50	1.0000	1.0000
L49	1	Safety Line 3/8	23.75 - 24.00	1.0000	1.0000
L49	3	CU12PSM9P8XXX(1-3/8)	23.75 - 24.00	1.0000	1.0000
L49	5	1266A(1/8)	23.75 - 24.00	1.0000	1.0000
L49	6	7983A(ELLIPTICAL)	23.75 - 24.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L49	8	3" Flexible Conduit	23.75 - 24.00	1.0000	1.0000
L49	9	HB114-1-0813U4-M5J(1-1/4)	23.75 - 24.00	1.0000	1.0000
L49	11	LDF7-50A(1-5/8)	23.75 - 24.00	1.0000	1.0000
L49	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	23.75 - 24.00	1.0000	1.0000
L49	14	HCS 6X12 6AWG(1-3/8)	23.75 - 24.00	1.0000	1.0000
L49	26	C6x10.5	23.75 - 24.00	1.0000	1.0000
L49	27	C6x10.5	23.75 - 24.00	1.0000	1.0000
L49	28	C6x10.5	23.75 - 24.00	1.0000	1.0000
L49	29	C6x10.5	23.75 - 24.00	1.0000	1.0000
L49	31	(Area) Aero MP3-04 (H)	23.75 - 24.00	1.0000	1.0000
L49	32	(Area) Aero MP3-04 (H)	23.75 - 24.00	1.0000	1.0000
L49	33	(Area) Aero MP3-04 (H)	23.75 - 24.00	1.0000	1.0000
L49	34	(Area) Aero MP3-04 (H)	23.75 - 24.00	1.0000	1.0000
L49	36	PL 1 x 5	23.75 - 24.00	1.0000	1.0000
L49	37	PL 1 x 5	23.75 - 24.00	1.0000	1.0000
L49	38	PL 1 x 5	23.75 - 24.00	1.0000	1.0000
L49	39	PL 1 x 5	23.75 - 24.00	1.0000	1.0000
L50	1	Safety Line 3/8	18.75 - 23.75	1.0000	1.0000
L50	3	CU12PSM9P8XXX(1-3/8)	18.75 - 23.75	1.0000	1.0000
L50	5	1266A(1/8)	18.75 - 23.75	1.0000	1.0000
L50	6	7983A(ELLIPTICAL)	18.75 - 23.75	1.0000	1.0000
L50	8	3" Flexible Conduit	18.75 - 23.75	1.0000	1.0000
L50	9	HB114-1-0813U4-M5J(1-1/4)	18.75 - 23.75	1.0000	1.0000
L50	11	LDF7-50A(1-5/8)	18.75 - 23.75	1.0000	1.0000
L50	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	18.75 - 23.75	1.0000	1.0000
L50	14	HCS 6X12 6AWG(1-3/8)	18.75 - 23.75	1.0000	1.0000
L50	26	C6x10.5	18.75 - 23.75	1.0000	1.0000
L50	27	C6x10.5	18.75 - 23.75	1.0000	1.0000
L50	28	C6x10.5	18.75 - 23.75	1.0000	1.0000
L50	29	C6x10.5	18.75 - 23.75	1.0000	1.0000
L50	31	(Area) Aero MP3-04 (H)	18.75 - 23.75	1.0000	1.0000
L50	32	(Area) Aero MP3-04 (H)	18.75 - 23.75	1.0000	1.0000
L50	33	(Area) Aero MP3-04 (H)	18.75 - 23.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L50	34	(Area) Aero MP3-04 (H)	18.75 - 23.75	1.0000	1.0000
L50	36	PL 1 x 5	18.75 - 23.75	1.0000	1.0000
L50	37	PL 1 x 5	18.75 - 23.75	1.0000	1.0000
L50	38	PL 1 x 5	18.75 - 23.75	1.0000	1.0000
L50	39	PL 1 x 5	18.75 - 23.75	1.0000	1.0000
L51	1	Safety Line 3/8	14.25 - 18.75	1.0000	1.0000
L51	3	CU12PSM9P8XXX(1-3/8)	14.25 - 18.75	1.0000	1.0000
L51	5	1266A(1/8)	14.25 - 18.75	1.0000	1.0000
L51	6	7983A(ELLIPTICAL)	14.25 - 18.75	1.0000	1.0000
L51	8	3" Flexible Conduit	14.25 - 18.75	1.0000	1.0000
L51	9	HB114-1-0813U4-M5J(1-1/4)	14.25 - 18.75	1.0000	1.0000
L51	11	LDF7-50A(1-5/8)	14.25 - 18.75	1.0000	1.0000
L51	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	14.25 - 18.75	1.0000	1.0000
L51	14	HCS 6X12 6AWG(1-3/8)	14.25 - 18.75	1.0000	1.0000
L51	26	C6x10.5	14.25 - 18.75	1.0000	1.0000
L51	27	C6x10.5	14.25 - 18.75	1.0000	1.0000
L51	28	C6x10.5	14.25 - 18.75	1.0000	1.0000
L51	29	C6x10.5	14.25 - 18.75	1.0000	1.0000
L51	31	(Area) Aero MP3-04 (H)	14.25 - 18.75	1.0000	1.0000
L51	32	(Area) Aero MP3-04 (H)	14.25 - 18.75	1.0000	1.0000
L51	33	(Area) Aero MP3-04 (H)	14.25 - 18.75	1.0000	1.0000
L51	34	(Area) Aero MP3-04 (H)	14.25 - 18.75	1.0000	1.0000
L51	36	PL 1 x 5	14.25 - 18.75	1.0000	1.0000
L51	37	PL 1 x 5	14.25 - 18.75	1.0000	1.0000
L51	38	PL 1 x 5	14.25 - 18.75	1.0000	1.0000
L51	39	PL 1 x 5	14.25 - 18.75	1.0000	1.0000
L51	46	(Area) Aero MP3-03 (H)	14.25 - 15.42	1.0000	1.0000
L51	47	(Area) Aero MP3-03 (H)	14.25 - 15.42	1.0000	1.0000
L51	48	(Area) Aero MP3-03 (H)	14.25 - 15.42	1.0000	1.0000
L51	49	(Area) Aero MP3-03 (H)	14.25 - 15.42	1.0000	1.0000
L52	1	Safety Line 3/8	14.00 - 14.25	1.0000	1.0000
L52	3	CU12PSM9P8XXX(1-3/8)	14.00 - 14.25	1.0000	1.0000
L52	5	1266A(1/8)	14.00 - 14.25	1.0000	1.0000
L52	6	7983A(ELLIPTICAL)	14.00 - 14.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L52	8	3" Flexible Conduit	14.00 - 14.25	1.0000	1.0000
L52	9	HB114-1-0813U4-M5J(1-1/4)	14.00 - 14.25	1.0000	1.0000
L52	11	LDF7-50A(1-5/8)	14.00 - 14.25	1.0000	1.0000
L52	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	14.00 - 14.25	1.0000	1.0000
L52	14	HCS 6X12 6AWG(1-3/8)	14.00 - 14.25	1.0000	1.0000
L52	26	C6x10.5	14.00 - 14.25	1.0000	1.0000
L52	27	C6x10.5	14.00 - 14.25	1.0000	1.0000
L52	28	C6x10.5	14.00 - 14.25	1.0000	1.0000
L52	29	C6x10.5	14.00 - 14.25	1.0000	1.0000
L52	31	(Area) Aero MP3-04 (H)	14.00 - 14.25	1.0000	1.0000
L52	32	(Area) Aero MP3-04 (H)	14.00 - 14.25	1.0000	1.0000
L52	33	(Area) Aero MP3-04 (H)	14.00 - 14.25	1.0000	1.0000
L52	34	(Area) Aero MP3-04 (H)	14.00 - 14.25	1.0000	1.0000
L52	36	PL 1 x 5	14.00 - 14.25	1.0000	1.0000
L52	37	PL 1 x 5	14.00 - 14.25	1.0000	1.0000
L52	38	PL 1 x 5	14.00 - 14.25	1.0000	1.0000
L52	39	PL 1 x 5	14.00 - 14.25	1.0000	1.0000
L52	46	(Area) Aero MP3-03 (H)	14.00 - 14.25	1.0000	1.0000
L52	47	(Area) Aero MP3-03 (H)	14.00 - 14.25	1.0000	1.0000
L52	48	(Area) Aero MP3-03 (H)	14.00 - 14.25	1.0000	1.0000
L52	49	(Area) Aero MP3-03 (H)	14.00 - 14.25	1.0000	1.0000
L53	1	Safety Line 3/8	9.00 - 14.00	1.0000	1.0000
L53	3	CU12PSM9P8XXX(1-3/8)	9.00 - 14.00	1.0000	1.0000
L53	5	1266A(1/8)	9.00 - 14.00	1.0000	1.0000
L53	6	7983A(ELLIPTICAL)	9.00 - 14.00	1.0000	1.0000
L53	8	3" Flexible Conduit	9.00 - 14.00	1.0000	1.0000
L53	9	HB114-1-0813U4-M5J(1-1/4)	9.00 - 14.00	1.0000	1.0000
L53	11	LDF7-50A(1-5/8)	9.00 - 14.00	1.0000	1.0000
L53	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	9.00 - 14.00	1.0000	1.0000
L53	14	HCS 6X12 6AWG(1-3/8)	9.00 - 14.00	1.0000	1.0000
L53	26	C6x10.5	9.00 - 14.00	1.0000	1.0000
L53	27	C6x10.5	9.00 - 14.00	1.0000	1.0000
L53	28	C6x10.5	9.00 - 14.00	1.0000	1.0000
L53	29	C6x10.5	9.00 - 14.00	1.0000	1.0000
L53	31	(Area) Aero MP3-04 (H)	9.00 - 14.00	1.0000	1.0000
L53	32	(Area) Aero MP3-04 (H)	9.00 - 14.00	1.0000	1.0000
L53	33	(Area) Aero MP3-04 (H)	9.00 - 14.00	1.0000	1.0000
L53	34	(Area) Aero MP3-04 (H)	9.00 - 14.00	1.0000	1.0000
L53	36	PL 1 x 5	9.00 - 14.00	1.0000	1.0000
L53	37	PL 1 x 5	9.00 - 14.00	1.0000	1.0000
L53	38	PL 1 x 5	9.00 - 14.00	1.0000	1.0000
L53	39	PL 1 x 5	9.00 - 14.00	1.0000	1.0000
L53	46	(Area) Aero MP3-03 (H)	9.00 - 14.00	1.0000	1.0000
L53	47	(Area) Aero MP3-03 (H)	9.00 - 14.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L53	48	(Area) Aero MP3-03 (H)	9.00 - 14.00	1.0000	1.0000
L53	49	(Area) Aero MP3-03 (H)	9.00 - 14.00	1.0000	1.0000
L54	1	Safety Line 3/8	5.00 - 9.00	1.0000	1.0000
L54	3	CU12PSM9P8XXX(1-3/8)	5.00 - 9.00	1.0000	1.0000
L54	5	1266A(1/8)	5.00 - 9.00	1.0000	1.0000
L54	6	7983A(ELLIPTICAL)	5.00 - 9.00	1.0000	1.0000
L54	8	3" Flexible Conduit	5.00 - 9.00	1.0000	1.0000
L54	9	HB114-1-0813U4-M5J(1-1/4)	5.00 - 9.00	1.0000	1.0000
L54	11	LDF7-50A(1-5/8)	5.00 - 9.00	1.0000	1.0000
L54	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	5.00 - 9.00	1.0000	1.0000
L54	14	HCS 6X12 6AWG(1-3/8)	5.00 - 9.00	1.0000	1.0000
L54	26	C6x10.5	7.67 - 9.00	1.0000	1.0000
L54	27	C6x10.5	8.00 - 9.00	1.0000	1.0000
L54	28	C6x10.5	5.00 - 9.00	1.0000	1.0000
L54	29	C6x10.5	5.00 - 9.00	1.0000	1.0000
L54	31	(Area) Aero MP3-04 (H)	5.00 - 9.00	1.0000	1.0000
L54	32	(Area) Aero MP3-04 (H)	5.00 - 9.00	1.0000	1.0000
L54	33	(Area) Aero MP3-04 (H)	5.00 - 9.00	1.0000	1.0000
L54	34	(Area) Aero MP3-04 (H)	5.00 - 9.00	1.0000	1.0000
L54	36	PL 1 x 5	5.00 - 9.00	1.0000	1.0000
L54	37	PL 1 x 5	5.00 - 9.00	1.0000	1.0000
L54	38	PL 1 x 5	5.00 - 9.00	1.0000	1.0000
L54	39	PL 1 x 5	5.00 - 9.00	1.0000	1.0000
L54	46	(Area) Aero MP3-03 (H)	5.00 - 9.00	1.0000	1.0000
L54	47	(Area) Aero MP3-03 (H)	5.00 - 9.00	1.0000	1.0000
L54	48	(Area) Aero MP3-03 (H)	5.00 - 9.00	1.0000	1.0000
L54	49	(Area) Aero MP3-03 (H)	5.00 - 9.00	1.0000	1.0000
L55	1	Safety Line 3/8	4.75 - 5.00	1.0000	1.0000
L55	3	CU12PSM9P8XXX(1-3/8)	4.75 - 5.00	1.0000	1.0000
L55	5	1266A(1/8)	4.75 - 5.00	1.0000	1.0000
L55	6	7983A(ELLIPTICAL)	4.75 - 5.00	1.0000	1.0000
L55	8	3" Flexible Conduit	4.75 - 5.00	1.0000	1.0000
L55	9	HB114-1-0813U4-M5J(1-1/4)	4.75 - 5.00	1.0000	1.0000
L55	11	LDF7-50A(1-5/8)	4.75 - 5.00	1.0000	1.0000
L55	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	4.75 - 5.00	1.0000	1.0000
L55	14	HCS 6X12 6AWG(1-3/8)	4.75 - 5.00	1.0000	1.0000
L55	28	C6x10.5	4.75 - 5.00	1.0000	1.0000
L55	29	C6x10.5	4.75 - 5.00	1.0000	1.0000
L55	31	(Area) Aero MP3-04 (H)	4.75 - 5.00	1.0000	1.0000
L55	32	(Area) Aero MP3-04 (H)	4.75 - 5.00	1.0000	1.0000
L55	33	(Area) Aero MP3-04 (H)	4.75 - 5.00	1.0000	1.0000
L55	34	(Area) Aero MP3-04 (H)	4.75 - 5.00	1.0000	1.0000
L55	36	PL 1 x 5	4.75 - 5.00	1.0000	1.0000
L55	37	PL 1 x 5	4.75 - 5.00	1.0000	1.0000
L55	38	PL 1 x 5	4.75 - 5.00	1.0000	1.0000
L55	39	PL 1 x 5	4.75 - 5.00	1.0000	1.0000
L55	46	(Area) Aero MP3-03 (H)	4.75 - 5.00	1.0000	1.0000
L55	47	(Area) Aero MP3-03 (H)	4.75 - 5.00	1.0000	1.0000
L55	48	(Area) Aero MP3-03 (H)	4.75 - 5.00	1.0000	1.0000
L55	49	(Area) Aero MP3-03 (H)	4.75 - 5.00	1.0000	1.0000
L56	1	Safety Line 3/8	4.50 - 4.75	1.0000	1.0000
L56	3	CU12PSM9P8XXX(1-3/8)	4.50 - 4.75	1.0000	1.0000
L56	5	1266A(1/8)	4.50 - 4.75	1.0000	1.0000
L56	6	7983A(ELLIPTICAL)	4.50 - 4.75	1.0000	1.0000
L56	8	3" Flexible Conduit	4.50 - 4.75	1.0000	1.0000
L56	9	HB114-1-0813U4-M5J(1-1/4)	4.50 - 4.75	1.0000	1.0000
L56	11	LDF7-50A(1-5/8)	4.50 - 4.75	1.0000	1.0000
L56	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	4.50 - 4.75	1.0000	1.0000
L56	14	HCS 6X12 6AWG(1-3/8)	4.50 - 4.75	1.0000	1.0000
L56	28	C6x10.5	4.50 - 4.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L56	29	C6x10.5	4.50 - 4.75	1.0000	1.0000
L56	31	(Area) Aero MP3-04 (H)	4.50 - 4.75	1.0000	1.0000
L56	32	(Area) Aero MP3-04 (H)	4.50 - 4.75	1.0000	1.0000
L56	33	(Area) Aero MP3-04 (H)	4.50 - 4.75	1.0000	1.0000
L56	34	(Area) Aero MP3-04 (H)	4.50 - 4.75	1.0000	1.0000
L56	36	PL 1 x 5	4.50 - 4.75	1.0000	1.0000
L56	37	PL 1 x 5	4.50 - 4.75	1.0000	1.0000
L56	38	PL 1 x 5	4.50 - 4.75	1.0000	1.0000
L56	39	PL 1 x 5	4.50 - 4.75	1.0000	1.0000
L56	46	(Area) Aero MP3-03 (H)	4.50 - 4.75	1.0000	1.0000
L56	47	(Area) Aero MP3-03 (H)	4.50 - 4.75	1.0000	1.0000
L56	48	(Area) Aero MP3-03 (H)	4.50 - 4.75	1.0000	1.0000
L56	49	(Area) Aero MP3-03 (H)	4.50 - 4.75	1.0000	1.0000
L57	1	Safety Line 3/8	0.00 - 4.50	1.0000	1.0000
L57	3	CU12PSM9P8XXX(1-3/8)	0.00 - 4.50	1.0000	1.0000
L57	5	1266A(1/8)	0.00 - 4.50	1.0000	1.0000
L57	6	7983A(ELLIPTICAL)	0.00 - 4.50	1.0000	1.0000
L57	8	3" Flexible Conduit	0.00 - 4.50	1.0000	1.0000
L57	9	HB114-1-0813U4-M5J(1-1/4)	0.00 - 4.50	1.0000	1.0000
L57	11	LDF7-50A(1-5/8)	0.00 - 4.50	1.0000	1.0000
L57	13	MLE Hybrid 9Power/18Fiber RL 2(1 5/8")	0.00 - 4.50	1.0000	1.0000
L57	14	HCS 6X12 6AWG(1-3/8)	0.00 - 4.50	1.0000	1.0000
L57	28	C6x10.5	0.00 - 4.50	1.0000	1.0000
L57	29	C6x10.5	0.00 - 4.50	1.0000	1.0000
L57	31	(Area) Aero MP3-04 (H)	0.00 - 4.50	1.0000	1.0000
L57	32	(Area) Aero MP3-04 (H)	0.00 - 4.50	1.0000	1.0000
L57	33	(Area) Aero MP3-04 (H)	0.00 - 4.50	1.0000	1.0000
L57	34	(Area) Aero MP3-04 (H)	0.00 - 4.50	1.0000	1.0000
L57	36	PL 1 x 5	2.50 - 4.50	1.0000	1.0000
L57	37	PL 1 x 5	2.50 - 4.50	1.0000	1.0000
L57	38	PL 1 x 5	2.50 - 4.50	1.0000	1.0000
L57	39	PL 1 x 5	2.50 - 4.50	1.0000	1.0000
L57	46	(Area) Aero MP3-03 (H)	0.00 - 4.50	1.0000	1.0000
L57	47	(Area) Aero MP3-03 (H)	0.00 - 4.50	1.0000	1.0000
L57	48	(Area) Aero MP3-03 (H)	0.00 - 4.50	1.0000	1.0000
L57	49	(Area) Aero MP3-03 (H)	0.00 - 4.50	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L4	73	PL 1.25x4	100.00 - 100.75	Auto	0.0000
L4	74	PL 1.25x4	100.00 - 100.75	Auto	0.0000
L4	75	PL 1.25x4	100.00 - 100.75	Auto	0.0000
L5	73	PL 1.25x4	99.25 - 100.00	Auto	0.0000
L5	74	PL 1.25x4	99.25 - 100.00	Auto	0.0000
L5	75	PL 1.25x4	99.25 - 100.00	Auto	0.0000
L6	73	PL 1.25x4	99.00 - 99.25	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L6	74	PL 1.25x4	99.00 - 99.25	Auto	0.0000
L6	75	PL 1.25x4	99.00 - 99.25	Auto	0.0000
L7	73	PL 1.25x4	94.00 - 99.00	Auto	0.0000
L7	74	PL 1.25x4	94.00 - 99.00	Auto	0.0000
L7	75	PL 1.25x4	94.00 - 99.00	Auto	0.0000
L8	62	(Area) CCI-65FP-060100 (H)	90.08 - 92.00	Auto	0.0000
L8	63	(Area) CCI-65FP-060100 (H)	90.08 - 92.00	Auto	0.0000
L8	65	(Area) CCI-65FP-045100 (H)	90.08 - 92.08	Auto	0.0000
L8	66	(Area) CCI-65FP-045100 (H)	90.08 - 92.08	Auto	0.0000
L8	73	PL 1.25x4	90.08 - 94.00	Auto	0.0000
L8	74	PL 1.25x4	90.08 - 94.00	Auto	0.0000
L8	75	PL 1.25x4	90.08 - 94.00	Auto	0.0000
L9	62	(Area) CCI-65FP-060100 (H)	89.83 - 90.08	Auto	0.0000
L9	63	(Area) CCI-65FP-060100 (H)	89.83 - 90.08	Auto	0.0000
L9	65	(Area) CCI-65FP-045100 (H)	89.83 - 90.08	Auto	0.0000
L9	66	(Area) CCI-65FP-045100 (H)	89.83 - 90.08	Auto	0.0000
L9	73	PL 1.25x4	89.83 - 90.08	Auto	0.0000
L9	74	PL 1.25x4	89.83 - 90.08	Auto	0.0000
L9	75	PL 1.25x4	89.83 - 90.08	Auto	0.0000
L10	62	(Area) CCI-65FP-060100 (H)	89.50 - 89.83	Auto	0.0000
L10	63	(Area) CCI-65FP-060100 (H)	89.50 - 89.83	Auto	0.0000
L10	65	(Area) CCI-65FP-045100 (H)	89.50 - 89.83	Auto	0.0000
L10	66	(Area) CCI-65FP-045100 (H)	89.50 - 89.83	Auto	0.0000
L10	73	PL 1.25x4	89.50 - 89.83	Auto	0.0000
L10	74	PL 1.25x4	89.50 - 89.83	Auto	0.0000
L10	75	PL 1.25x4	89.50 - 89.83	Auto	0.0000
L11	62	(Area) CCI-65FP-060100 (H)	89.25 - 89.50	Auto	0.0648
L11	63	(Area) CCI-65FP-060100 (H)	89.25 - 89.50	Auto	0.0648
L11	65	(Area) CCI-65FP-045100 (H)	89.25 - 89.50	Auto	0.0000
L11	66	(Area) CCI-65FP-045100 (H)	89.25 - 89.50	Auto	0.0000
L11	73	PL 1.25x4	89.25 - 89.50	Auto	0.0000
L11	74	PL 1.25x4	89.25 - 89.50	Auto	0.0000
L11	75	PL 1.25x4	89.25 - 89.50	Auto	0.0000
L12	62	(Area) CCI-65FP-060100 (H)	84.25 - 89.25	Auto	0.0299

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L12	63	(Area) CCI-65FP-060100 (H)	84.25 - 89.25	Auto	0.0299
L12	65	(Area) CCI-65FP-045100 (H)	84.25 - 89.25	Auto	0.0000
L12	66	(Area) CCI-65FP-045100 (H)	84.25 - 89.25	Auto	0.0000
L12	73	PL 1.25x4	84.25 - 89.25	Auto	0.0000
L12	74	PL 1.25x4	84.25 - 89.25	Auto	0.0000
L12	75	PL 1.25x4	84.25 - 89.25	Auto	0.0000
L13	62	(Area) CCI-65FP-060100 (H)	78.00 - 84.25	Auto	0.0005
L13	63	(Area) CCI-65FP-060100 (H)	78.00 - 84.25	Auto	0.0005
L13	65	(Area) CCI-65FP-045100 (H)	78.00 - 84.25	Auto	0.0000
L13	66	(Area) CCI-65FP-045100 (H)	78.00 - 84.25	Auto	0.0000
L13	73	PL 1.25x4	78.00 - 84.25	Auto	0.0000
L13	74	PL 1.25x4	78.00 - 84.25	Auto	0.0000
L13	75	PL 1.25x4	78.00 - 84.25	Auto	0.0000
L13	77	PL 1.25x4	78.00 - 80.00	Auto	0.0000
L13	78	PL 1.25x4	78.00 - 78.25	Auto	0.0000
L13	79	PL 1.25x4	78.00 - 80.00	Auto	0.0000
L13	80	PL 1.25x4	78.00 - 80.00	Auto	0.0000
L14	62	(Area) CCI-65FP-060100 (H)	77.00 - 78.00	Auto	0.0414
L14	63	(Area) CCI-65FP-060100 (H)	77.00 - 78.00	Auto	0.0414
L14	65	(Area) CCI-65FP-045100 (H)	77.00 - 78.00	Auto	0.0000
L14	66	(Area) CCI-65FP-045100 (H)	77.00 - 78.00	Auto	0.0000
L14	73	PL 1.25x4	77.00 - 78.00	Auto	0.0000
L14	74	PL 1.25x4	77.00 - 78.00	Auto	0.0000
L14	75	PL 1.25x4	77.00 - 78.00	Auto	0.0000
L14	77	PL 1.25x4	77.00 - 78.00	Auto	0.0000
L14	78	PL 1.25x4	77.00 - 78.00	Auto	0.0000
L14	79	PL 1.25x4	77.00 - 78.00	Auto	0.0000
L14	80	PL 1.25x4	77.00 - 78.00	Auto	0.0000
L15	62	(Area) CCI-65FP-060100 (H)	76.75 - 77.00	Auto	0.0357
L15	63	(Area) CCI-65FP-060100 (H)	76.75 - 77.00	Auto	0.0357
L15	65	(Area) CCI-65FP-045100 (H)	76.75 - 77.00	Auto	0.0000
L15	66	(Area) CCI-65FP-045100 (H)	76.75 - 77.00	Auto	0.0000
L15	73	PL 1.25x4	76.75 - 77.00	Auto	0.0000
L15	74	PL 1.25x4	76.75 - 77.00	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L15	75	PL 1.25x4	76.75 - 77.00	Auto	0.0000
L15	77	PL 1.25x4	76.75 - 77.00	Auto	0.0000
L15	78	PL 1.25x4	76.75 - 77.00	Auto	0.0000
L15	79	PL 1.25x4	76.75 - 77.00	Auto	0.0000
L15	80	PL 1.25x4	76.75 - 77.00	Auto	0.0000
L16	62	(Area) CCI-65FP-060100 (H)	76.50 - 76.75	Auto	0.0781
L16	63	(Area) CCI-65FP-060100 (H)	76.50 - 76.75	Auto	0.0781
L16	65	(Area) CCI-65FP-045100 (H)	76.50 - 76.75	Auto	0.0000
L16	66	(Area) CCI-65FP-045100 (H)	76.50 - 76.75	Auto	0.0000
L16	73	PL 1.25x4	76.50 - 76.75	Auto	0.0000
L16	74	PL 1.25x4	76.50 - 76.75	Auto	0.0000
L16	75	PL 1.25x4	76.50 - 76.75	Auto	0.0000
L16	77	PL 1.25x4	76.50 - 76.75	Auto	0.0000
L16	78	PL 1.25x4	76.50 - 76.75	Auto	0.0000
L16	79	PL 1.25x4	76.50 - 76.75	Auto	0.0000
L16	80	PL 1.25x4	76.50 - 76.75	Auto	0.0000
L17	62	(Area) CCI-65FP-060100 (H)	75.50 - 76.50	Auto	0.0725
L17	63	(Area) CCI-65FP-060100 (H)	75.50 - 76.50	Auto	0.0725
L17	65	(Area) CCI-65FP-045100 (H)	75.50 - 76.50	Auto	0.0000
L17	66	(Area) CCI-65FP-045100 (H)	75.50 - 76.50	Auto	0.0000
L17	73	PL 1.25x4	75.50 - 76.50	Auto	0.0000
L17	74	PL 1.25x4	75.50 - 76.50	Auto	0.0000
L17	75	PL 1.25x4	75.50 - 76.50	Auto	0.0000
L17	77	PL 1.25x4	75.50 - 76.50	Auto	0.0000
L17	78	PL 1.25x4	75.50 - 76.50	Auto	0.0000
L17	79	PL 1.25x4	75.50 - 76.50	Auto	0.0000
L17	80	PL 1.25x4	75.50 - 76.50	Auto	0.0000
L18	62	(Area) CCI-65FP-060100 (H)	75.25 - 75.50	Auto	0.0000
L18	63	(Area) CCI-65FP-060100 (H)	75.25 - 75.50	Auto	0.0000
L18	65	(Area) CCI-65FP-045100 (H)	75.25 - 75.50	Auto	0.0000
L18	66	(Area) CCI-65FP-045100 (H)	75.25 - 75.50	Auto	0.0000
L18	73	PL 1.25x4	75.25 - 75.50	Auto	0.0000
L18	74	PL 1.25x4	75.25 - 75.50	Auto	0.0000
L18	75	PL 1.25x4	75.25 - 75.50	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L18	77	PL 1.25x4	75.25 - 75.50	Auto	0.0000
L18	78	PL 1.25x4	75.25 - 75.50	Auto	0.0000
L18	79	PL 1.25x4	75.25 - 75.50	Auto	0.0000
L18	80	PL 1.25x4	75.25 - 75.50	Auto	0.0000
L19	60	(Area) CCI-65FP-065125 (H)	74.50 - 74.75	Auto	0.0499
L19	62	(Area) CCI-65FP-060100 (H)	74.50 - 75.25	Auto	0.0000
L19	63	(Area) CCI-65FP-060100 (H)	74.50 - 75.25	Auto	0.0000
L19	65	(Area) CCI-65FP-045100 (H)	74.50 - 75.25	Auto	0.0000
L19	66	(Area) CCI-65FP-045100 (H)	74.50 - 75.25	Auto	0.0000
L19	73	PL 1.25x4	74.50 - 75.25	Auto	0.0000
L19	74	PL 1.25x4	74.50 - 75.25	Auto	0.0000
L19	75	PL 1.25x4	74.50 - 75.25	Auto	0.0000
L19	77	PL 1.25x4	74.50 - 75.25	Auto	0.0000
L19	78	PL 1.25x4	74.50 - 75.25	Auto	0.0000
L19	79	PL 1.25x4	74.50 - 75.25	Auto	0.0000
L19	80	PL 1.25x4	74.50 - 75.25	Auto	0.0000
L20	60	(Area) CCI-65FP-065125 (H)	74.25 - 74.50	Auto	0.0788
L20	62	(Area) CCI-65FP-060100 (H)	74.25 - 74.50	Auto	0.0020
L20	63	(Area) CCI-65FP-060100 (H)	74.25 - 74.50	Auto	0.0020
L20	65	(Area) CCI-65FP-045100 (H)	74.25 - 74.50	Auto	0.0000
L20	66	(Area) CCI-65FP-045100 (H)	74.25 - 74.50	Auto	0.0000
L20	73	PL 1.25x4	74.25 - 74.50	Auto	0.0000
L20	74	PL 1.25x4	74.25 - 74.50	Auto	0.0000
L20	75	PL 1.25x4	74.25 - 74.50	Auto	0.0000
L20	77	PL 1.25x4	74.25 - 74.50	Auto	0.0000
L20	78	PL 1.25x4	74.25 - 74.50	Auto	0.0000
L20	79	PL 1.25x4	74.25 - 74.50	Auto	0.0000
L20	80	PL 1.25x4	74.25 - 74.50	Auto	0.0000
L21	60	(Area) CCI-65FP-065125 (H)	72.00 - 74.25	Auto	0.0632
L21	62	(Area) CCI-65FP-060100 (H)	72.00 - 74.25	Auto	0.0000
L21	63	(Area) CCI-65FP-060100 (H)	72.00 - 74.25	Auto	0.0000
L21	65	(Area) CCI-65FP-045100 (H)	72.00 - 74.25	Auto	0.0000
L21	66	(Area) CCI-65FP-045100 (H)	72.00 - 74.25	Auto	0.0000
L21	73	PL 1.25x4	74.00 - 74.25	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L21	74	PL 1.25x4	74.00 - 74.25	Auto	0.0000
L21	75	PL 1.25x4	73.00 - 74.25	Auto	0.0000
L21	77	PL 1.25x4	72.00 - 74.25	Auto	0.0000
L21	78	PL 1.25x4	72.00 - 74.25	Auto	0.0000
L21	79	PL 1.25x4	72.00 - 74.25	Auto	0.0000
L21	80	PL 1.25x4	72.00 - 74.25	Auto	0.0000
L22	41	PL 1 x 5	71.75 - 72.00	Auto	0.0000
L22	42	PL 1 x 5	71.75 - 72.00	Auto	0.0000
L22	43	PL 1 x 5	71.75 - 72.00	Auto	0.0000
L22	44	PL 1 x 5	71.75 - 72.00	Auto	0.0000
L22	56	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	Auto	0.0000
L22	57	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	Auto	0.0000
L22	58	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	Auto	0.0000
L22	60	(Area) CCI-65FP-065125 (H)	71.75 - 72.00	Auto	0.0270
L22	62	(Area) CCI-65FP-060100 (H)	71.75 - 72.00	Auto	0.0000
L22	63	(Area) CCI-65FP-060100 (H)	71.75 - 72.00	Auto	0.0000
L22	65	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	Auto	0.0000
L22	66	(Area) CCI-65FP-045100 (H)	71.75 - 72.00	Auto	0.0000
L22	77	PL 1.25x4	71.75 - 72.00	Auto	0.0000
L22	78	PL 1.25x4	71.75 - 72.00	Auto	0.0000
L22	79	PL 1.25x4	71.75 - 72.00	Auto	0.0000
L22	80	PL 1.25x4	71.75 - 72.00	Auto	0.0000
L23	41	PL 1 x 5	70.50 - 71.75	Auto	0.0000
L23	42	PL 1 x 5	70.50 - 71.75	Auto	0.0000
L23	43	PL 1 x 5	70.50 - 71.75	Auto	0.0000
L23	44	PL 1 x 5	70.50 - 71.75	Auto	0.0000
L23	56	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	Auto	0.0000
L23	57	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	Auto	0.0000
L23	58	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	Auto	0.0000
L23	60	(Area) CCI-65FP-065125 (H)	70.50 - 71.75	Auto	0.0208
L23	62	(Area) CCI-65FP-060100 (H)	70.50 - 71.75	Auto	0.0000
L23	63	(Area) CCI-65FP-060100 (H)	70.50 - 71.75	Auto	0.0000
L23	65	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	Auto	0.0000
L23	66	(Area) CCI-65FP-045100 (H)	70.50 - 71.75	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L23	77	PL 1.25x4	70.50 - 71.75	Auto	0.0000
L23	78	PL 1.25x4	70.50 - 71.75	Auto	0.0000
L23	79	PL 1.25x4	70.50 - 71.75	Auto	0.0000
L23	80	PL 1.25x4	70.50 - 71.75	Auto	0.0000
L24	41	PL 1 x 5	70.25 - 70.50	Auto	0.0000
L24	42	PL 1 x 5	70.25 - 70.50	Auto	0.0000
L24	43	PL 1 x 5	70.25 - 70.50	Auto	0.0000
L24	44	PL 1 x 5	70.25 - 70.50	Auto	0.0000
L24	56	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	Auto	0.0000
L24	57	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	Auto	0.0000
L24	58	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	Auto	0.0000
L24	60	(Area) CCI-65FP-065125 (H)	70.25 - 70.50	Auto	0.0248
L24	62	(Area) CCI-65FP-060100 (H)	70.25 - 70.50	Auto	0.0000
L24	63	(Area) CCI-65FP-060100 (H)	70.25 - 70.50	Auto	0.0000
L24	65	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	Auto	0.0000
L24	66	(Area) CCI-65FP-045100 (H)	70.25 - 70.50	Auto	0.0000
L24	77	PL 1.25x4	70.25 - 70.50	Auto	0.0000
L24	78	PL 1.25x4	70.25 - 70.50	Auto	0.0000
L24	79	PL 1.25x4	70.25 - 70.50	Auto	0.0000
L24	80	PL 1.25x4	70.25 - 70.50	Auto	0.0000
L25	41	PL 1 x 5	70.00 - 70.25	Auto	0.0000
L25	42	PL 1 x 5	70.00 - 70.25	Auto	0.0000
L25	43	PL 1 x 5	70.00 - 70.25	Auto	0.0000
L25	44	PL 1 x 5	70.00 - 70.25	Auto	0.0000
L25	56	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	Auto	0.0000
L25	57	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	Auto	0.0000
L25	58	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	Auto	0.0000
L25	60	(Area) CCI-65FP-065125 (H)	70.00 - 70.25	Auto	0.0227
L25	62	(Area) CCI-65FP-060100 (H)	70.00 - 70.25	Auto	0.0000
L25	63	(Area) CCI-65FP-060100 (H)	70.00 - 70.25	Auto	0.0000
L25	65	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	Auto	0.0000
L25	66	(Area) CCI-65FP-045100 (H)	70.00 - 70.25	Auto	0.0000
L25	77	PL 1.25x4	70.00 - 70.25	Auto	0.0000
L25	78	PL 1.25x4	70.00 - 70.25	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L25	79	PL 1.25x4	70.00 - 70.25	Auto	0.0000
L25	80	PL 1.25x4	70.00 - 70.25	Auto	0.0000
L26	41	PL 1 x 5	69.75 - 70.00	Auto	0.0000
L26	42	PL 1 x 5	69.75 - 70.00	Auto	0.0000
L26	43	PL 1 x 5	69.75 - 70.00	Auto	0.0000
L26	44	PL 1 x 5	69.75 - 70.00	Auto	0.0000
L26	56	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	Auto	0.0000
L26	57	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	Auto	0.0000
L26	58	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	Auto	0.0000
L26	60	(Area) CCI-65FP-065125 (H)	69.75 - 70.00	Auto	0.0000
L26	62	(Area) CCI-65FP-060100 (H)	69.75 - 70.00	Auto	0.0000
L26	63	(Area) CCI-65FP-060100 (H)	69.75 - 70.00	Auto	0.0000
L26	65	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	Auto	0.0000
L26	66	(Area) CCI-65FP-045100 (H)	69.75 - 70.00	Auto	0.0000
L26	77	PL 1.25x4	69.75 - 70.00	Auto	0.0000
L26	78	PL 1.25x4	69.75 - 70.00	Auto	0.0000
L26	79	PL 1.25x4	69.75 - 70.00	Auto	0.0000
L26	80	PL 1.25x4	69.75 - 70.00	Auto	0.0000
L27	41	PL 1 x 5	69.50 - 69.75	Auto	0.0000
L27	42	PL 1 x 5	69.50 - 69.75	Auto	0.0000
L27	43	PL 1 x 5	69.50 - 69.75	Auto	0.0000
L27	44	PL 1 x 5	69.50 - 69.75	Auto	0.0000
L27	56	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	Auto	0.0000
L27	57	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	Auto	0.0000
L27	58	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	Auto	0.0000
L27	60	(Area) CCI-65FP-065125 (H)	69.50 - 69.75	Auto	0.0547
L27	62	(Area) CCI-65FP-060100 (H)	69.50 - 69.75	Auto	0.0000
L27	63	(Area) CCI-65FP-060100 (H)	69.50 - 69.75	Auto	0.0000
L27	65	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	Auto	0.0000
L27	66	(Area) CCI-65FP-045100 (H)	69.50 - 69.75	Auto	0.0000
L27	77	PL 1.25x4	69.50 - 69.75	Auto	0.0000
L27	78	PL 1.25x4	69.50 - 69.75	Auto	0.0000
L27	79	PL 1.25x4	69.50 - 69.75	Auto	0.0000
L27	80	PL 1.25x4	69.50 - 69.75	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L28	41	PL 1 x 5	69.25 - 69.50	Auto	0.0000
L28	42	PL 1 x 5	69.25 - 69.50	Auto	0.0000
L28	43	PL 1 x 5	69.25 - 69.50	Auto	0.0000
L28	44	PL 1 x 5	69.25 - 69.50	Auto	0.0000
L28	56	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	Auto	0.0000
L28	57	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	Auto	0.0000
L28	58	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	Auto	0.0000
L28	60	(Area) CCI-65FP-065125 (H)	69.25 - 69.50	Auto	0.0010
L28	62	(Area) CCI-65FP-060100 (H)	69.25 - 69.50	Auto	0.0000
L28	63	(Area) CCI-65FP-060100 (H)	69.25 - 69.50	Auto	0.0000
L28	65	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	Auto	0.0000
L28	66	(Area) CCI-65FP-045100 (H)	69.25 - 69.50	Auto	0.0000
L28	77	PL 1.25x4	69.25 - 69.50	Auto	0.0000
L28	78	PL 1.25x4	69.25 - 69.50	Auto	0.0000
L28	79	PL 1.25x4	69.25 - 69.50	Auto	0.0000
L28	80	PL 1.25x4	69.25 - 69.50	Auto	0.0000
L29	41	PL 1 x 5	64.25 - 69.25	Auto	0.0000
L29	42	PL 1 x 5	64.25 - 69.25	Auto	0.0000
L29	43	PL 1 x 5	64.25 - 69.25	Auto	0.0000
L29	44	PL 1 x 5	64.25 - 69.25	Auto	0.0000
L29	56	(Area) CCI-65FP-045100 (H)	64.25 - 69.25	Auto	0.0000
L29	57	(Area) CCI-65FP-045100 (H)	64.25 - 69.25	Auto	0.0000
L29	58	(Area) CCI-65FP-045100 (H)	64.25 - 69.25	Auto	0.0000
L29	60	(Area) CCI-65FP-065125 (H)	64.25 - 69.25	Auto	0.0000
L29	62	(Area) CCI-65FP-060100 (H)	67.00 - 69.25	Auto	0.0000
L29	63	(Area) CCI-65FP-060100 (H)	67.00 - 69.25	Auto	0.0000
L29	65	(Area) CCI-65FP-045100 (H)	68.00 - 69.25	Auto	0.0000
L29	66	(Area) CCI-65FP-045100 (H)	68.00 - 69.25	Auto	0.0000
L29	77	PL 1.25x4	68.50 - 69.25	Auto	0.0000
L29	78	PL 1.25x4	68.25 - 69.25	Auto	0.0000
L29	79	PL 1.25x4	68.25 - 69.25	Auto	0.0000
L29	80	PL 1.25x4	68.25 - 69.25	Auto	0.0000
L30	41	PL 1 x 5	59.25 - 64.25	Auto	0.0000
L30	42	PL 1 x 5	59.25 - 64.25	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L30	43	PL 1 x 5	59.25 - 64.25	Auto	0.0000
L30	44	PL 1 x 5	59.25 - 64.25	Auto	0.0000
L30	56	(Area) CCI-65FP-045100 (H)	59.25 - 64.25	Auto	0.0000
L30	57	(Area) CCI-65FP-045100 (H)	59.25 - 64.25	Auto	0.0000
L30	58	(Area) CCI-65FP-045100 (H)	59.25 - 64.25	Auto	0.0000
L30	60	(Area) CCI-65FP-065125 (H)	59.25 - 64.25	Auto	0.0000
L31	41	PL 1 x 5	56.00 - 59.25	Auto	0.0000
L31	42	PL 1 x 5	56.00 - 59.25	Auto	0.0000
L31	43	PL 1 x 5	56.00 - 59.25	Auto	0.0000
L31	44	PL 1 x 5	56.00 - 59.25	Auto	0.0000
L31	56	(Area) CCI-65FP-045100 (H)	56.00 - 59.25	Auto	0.0000
L31	57	(Area) CCI-65FP-045100 (H)	56.00 - 59.25	Auto	0.0000
L31	58	(Area) CCI-65FP-045100 (H)	56.00 - 59.25	Auto	0.0000
L31	60	(Area) CCI-65FP-065125 (H)	56.00 - 59.25	Auto	0.0000
L31	68	(Area) CCI-65FP-045100 (H)	56.00 - 57.50	Auto	0.0000
L31	69	(Area) CCI-65FP-045100 (H)	56.00 - 57.50	Auto	0.0000
L31	70	(Area) CCI-65FP-045100 (H)	56.00 - 57.50	Auto	0.0000
L31	71	(Area) CCI-65FP-045100 (H)	56.00 - 57.25	Auto	0.0000
L32	26	C6x10.5	55.75 - 56.00	Auto	0.0000
L32	27	C6x10.5	55.75 - 56.00	Auto	0.0000
L32	28	C6x10.5	55.75 - 56.00	Auto	0.0000
L32	29	C6x10.5	55.75 - 56.00	Auto	0.0000
L32	41	PL 1 x 5	55.75 - 56.00	Auto	0.0000
L32	42	PL 1 x 5	55.75 - 56.00	Auto	0.0000
L32	43	PL 1 x 5	55.75 - 56.00	Auto	0.0000
L32	44	PL 1 x 5	55.75 - 56.00	Auto	0.0000
L32	56	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	Auto	0.0000
L32	57	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	Auto	0.0000
L32	58	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	Auto	0.0000
L32	60	(Area) CCI-65FP-065125 (H)	55.75 - 56.00	Auto	0.0000
L32	68	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	Auto	0.0000
L32	69	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	Auto	0.0000
L32	70	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	Auto	0.0000
L32	71	(Area) CCI-65FP-045100 (H)	55.75 - 56.00	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L33	26	C6x10.5	55.50 - 55.75	Auto	0.0000
L33	27	C6x10.5	55.50 - 55.75	Auto	0.0000
L33	28	C6x10.5	55.50 - 55.75	Auto	0.0000
L33	29	C6x10.5	55.50 - 55.75	Auto	0.0000
L33	41	PL 1 x 5	55.50 - 55.75	Auto	0.0000
L33	42	PL 1 x 5	55.50 - 55.75	Auto	0.0000
L33	43	PL 1 x 5	55.50 - 55.75	Auto	0.0000
L33	44	PL 1 x 5	55.50 - 55.75	Auto	0.0000
L33	56	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	Auto	0.0000
L33	57	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	Auto	0.0000
L33	58	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	Auto	0.0000
L33	60	(Area) CCI-65FP-065125 (H)	55.50 - 55.75	Auto	0.0000
L33	68	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	Auto	0.0000
L33	69	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	Auto	0.0000
L33	70	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	Auto	0.0000
L33	71	(Area) CCI-65FP-045100 (H)	55.50 - 55.75	Auto	0.0000
L34	26	C6x10.5	55.25 - 55.50	Auto	0.0000
L34	27	C6x10.5	55.25 - 55.50	Auto	0.0000
L34	28	C6x10.5	55.25 - 55.50	Auto	0.0000
L34	29	C6x10.5	55.25 - 55.50	Auto	0.0000
L34	41	PL 1 x 5	55.25 - 55.50	Auto	0.0000
L34	42	PL 1 x 5	55.25 - 55.50	Auto	0.0000
L34	43	PL 1 x 5	55.25 - 55.50	Auto	0.0000
L34	44	PL 1 x 5	55.25 - 55.50	Auto	0.0000
L34	56	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	Auto	0.0000
L34	57	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	Auto	0.0000
L34	58	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	Auto	0.0000
L34	60	(Area) CCI-65FP-065125 (H)	55.25 - 55.50	Auto	0.0000
L34	68	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	Auto	0.0000
L34	69	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	Auto	0.0000
L34	70	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	Auto	0.0000
L34	71	(Area) CCI-65FP-045100 (H)	55.25 - 55.50	Auto	0.0000
L35	26	C6x10.5	54.00 - 55.25	Auto	0.0000
L35	27	C6x10.5	54.00 - 55.25	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L35	28	C6x10.5	54.00 - 55.25	Auto	0.0000
L35	29	C6x10.5	54.00 - 55.25	Auto	0.0000
L35	41	PL 1 x 5	54.00 - 55.25	Auto	0.0000
L35	42	PL 1 x 5	54.00 - 55.25	Auto	0.0000
L35	43	PL 1 x 5	54.00 - 55.25	Auto	0.0000
L35	44	PL 1 x 5	54.00 - 55.25	Auto	0.0000
L35	56	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	Auto	0.0000
L35	57	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	Auto	0.0000
L35	58	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	Auto	0.0000
L35	60	(Area) CCI-65FP-065125 (H)	54.00 - 55.25	Auto	0.0000
L35	68	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	Auto	0.0000
L35	69	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	Auto	0.0000
L35	70	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	Auto	0.0000
L35	71	(Area) CCI-65FP-045100 (H)	54.00 - 55.25	Auto	0.0000
L36	26	C6x10.5	53.75 - 54.00	Auto	0.0000
L36	27	C6x10.5	53.75 - 54.00	Auto	0.0000
L36	28	C6x10.5	53.75 - 54.00	Auto	0.0000
L36	29	C6x10.5	53.75 - 54.00	Auto	0.0000
L36	41	PL 1 x 5	53.75 - 54.00	Auto	0.0000
L36	42	PL 1 x 5	53.75 - 54.00	Auto	0.0000
L36	43	PL 1 x 5	53.75 - 54.00	Auto	0.0000
L36	44	PL 1 x 5	53.75 - 54.00	Auto	0.0000
L36	56	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	Auto	0.0000
L36	57	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	Auto	0.0000
L36	58	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	Auto	0.0000
L36	60	(Area) CCI-65FP-065125 (H)	53.75 - 54.00	Auto	0.0000
L36	68	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	Auto	0.0000
L36	69	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	Auto	0.0000
L36	70	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	Auto	0.0000
L36	71	(Area) CCI-65FP-045100 (H)	53.75 - 54.00	Auto	0.0000
L37	26	C6x10.5	53.50 - 53.75	Auto	0.0000
L37	27	C6x10.5	53.50 - 53.75	Auto	0.0000
L37	28	C6x10.5	53.50 - 53.75	Auto	0.0000
L37	29	C6x10.5	53.50 - 53.75	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L37	41	PL 1 x 5	53.50 - 53.75	Auto	0.0000
L37	42	PL 1 x 5	53.50 - 53.75	Auto	0.0000
L37	43	PL 1 x 5	53.50 - 53.75	Auto	0.0000
L37	44	PL 1 x 5	53.50 - 53.75	Auto	0.0000
L37	56	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	Auto	0.0000
L37	57	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	Auto	0.0000
L37	58	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	Auto	0.0000
L37	60	(Area) CCI-65FP-065125 (H)	53.50 - 53.75	Auto	0.0000
L37	68	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	Auto	0.0000
L37	69	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	Auto	0.0000
L37	70	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	Auto	0.0000
L37	71	(Area) CCI-65FP-045100 (H)	53.50 - 53.75	Auto	0.0000
L38	26	C6x10.5	53.25 - 53.50	Auto	0.0000
L38	27	C6x10.5	53.25 - 53.50	Auto	0.0000
L38	28	C6x10.5	53.25 - 53.50	Auto	0.0000
L38	29	C6x10.5	53.25 - 53.50	Auto	0.0000
L38	41	PL 1 x 5	53.25 - 53.50	Auto	0.0000
L38	42	PL 1 x 5	53.25 - 53.50	Auto	0.0000
L38	43	PL 1 x 5	53.25 - 53.50	Auto	0.0000
L38	44	PL 1 x 5	53.25 - 53.50	Auto	0.0000
L38	56	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	Auto	0.0000
L38	57	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	Auto	0.0000
L38	58	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	Auto	0.0000
L38	60	(Area) CCI-65FP-065125 (H)	53.25 - 53.50	Auto	0.0000
L38	68	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	Auto	0.0000
L38	69	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	Auto	0.0000
L38	70	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	Auto	0.0000
L38	71	(Area) CCI-65FP-045100 (H)	53.25 - 53.50	Auto	0.0000
L39	26	C6x10.5	53.00 - 53.25	Auto	0.0000
L39	27	C6x10.5	53.00 - 53.25	Auto	0.0000
L39	28	C6x10.5	53.00 - 53.25	Auto	0.0000
L39	29	C6x10.5	53.00 - 53.25	Auto	0.0000
L39	41	PL 1 x 5	53.00 - 53.25	Auto	0.0000
L39	42	PL 1 x 5	53.00 - 53.25	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L39	43	PL 1 x 5	53.00 - 53.25	Auto	0.0000
L39	44	PL 1 x 5	53.00 - 53.25	Auto	0.0000
L39	56	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	Auto	0.0000
L39	57	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	Auto	0.0000
L39	58	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	Auto	0.0000
L39	60	(Area) CCI-65FP-065125 (H)	53.00 - 53.25	Auto	0.0000
L39	68	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	Auto	0.0000
L39	69	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	Auto	0.0000
L39	70	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	Auto	0.0000
L39	71	(Area) CCI-65FP-045100 (H)	53.00 - 53.25	Auto	0.0000
L40	26	C6x10.5	48.00 - 53.00	Auto	0.0000
L40	27	C6x10.5	48.00 - 53.00	Auto	0.0000
L40	28	C6x10.5	48.00 - 53.00	Auto	0.0000
L40	29	C6x10.5	48.00 - 53.00	Auto	0.0000
L40	41	PL 1 x 5	48.00 - 53.00	Auto	0.0000
L40	42	PL 1 x 5	48.00 - 53.00	Auto	0.0000
L40	43	PL 1 x 5	48.00 - 53.00	Auto	0.0000
L40	44	PL 1 x 5	48.00 - 53.00	Auto	0.0000
L40	56	(Area) CCI-65FP-045100 (H)	52.00 - 53.00	Auto	0.0000
L40	57	(Area) CCI-65FP-045100 (H)	52.00 - 53.00	Auto	0.0000
L40	58	(Area) CCI-65FP-045100 (H)	52.00 - 53.00	Auto	0.0000
L40	60	(Area) CCI-65FP-065125 (H)	50.50 - 53.00	Auto	0.0000
L40	68	(Area) CCI-65FP-045100 (H)	48.00 - 53.00	Auto	0.0000
L40	69	(Area) CCI-65FP-045100 (H)	48.00 - 53.00	Auto	0.0000
L40	70	(Area) CCI-65FP-045100 (H)	48.00 - 53.00	Auto	0.0000
L40	71	(Area) CCI-65FP-045100 (H)	48.00 - 53.00	Auto	0.0000
L41	26	C6x10.5	39.75 - 48.00	Auto	0.0000
L41	27	C6x10.5	39.75 - 48.00	Auto	0.0000
L41	28	C6x10.5	39.75 - 48.00	Auto	0.0000
L41	29	C6x10.5	39.75 - 48.00	Auto	0.0000
L41	41	PL 1 x 5	39.75 - 48.00	Auto	0.0000
L41	42	PL 1 x 5	39.75 - 48.00	Auto	0.0000
L41	43	PL 1 x 5	39.75 - 48.00	Auto	0.0000
L41	44	PL 1 x 5	39.75 - 48.00	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L41	51	(Area) Aero MP3-03 (H)	39.75 - 45.42	Auto	0.0000
L41	52	(Area) Aero MP3-03 (H)	39.75 - 45.42	Auto	0.0000
L41	53	(Area) Aero MP3-03 (H)	39.75 - 45.42	Auto	0.0000
L41	54	(Area) Aero MP3-03 (H)	39.75 - 45.42	Auto	0.0000
L41	68	(Area) CCI-65FP-045100 (H)	42.50 - 48.00	Auto	0.0000
L41	69	(Area) CCI-65FP-045100 (H)	42.50 - 48.00	Auto	0.0000
L41	70	(Area) CCI-65FP-045100 (H)	42.50 - 48.00	Auto	0.0000
L41	71	(Area) CCI-65FP-045100 (H)	42.25 - 48.00	Auto	0.0000
L42	26	C6x10.5	38.75 - 39.75	Auto	0.0000
L42	27	C6x10.5	38.75 - 39.75	Auto	0.0000
L42	28	C6x10.5	38.75 - 39.75	Auto	0.0000
L42	29	C6x10.5	38.75 - 39.75	Auto	0.0000
L42	41	PL 1 x 5	38.75 - 39.75	Auto	0.0000
L42	42	PL 1 x 5	38.75 - 39.75	Auto	0.0000
L42	43	PL 1 x 5	38.75 - 39.75	Auto	0.0000
L42	44	PL 1 x 5	38.75 - 39.75	Auto	0.0000
L42	51	(Area) Aero MP3-03 (H)	38.75 - 39.75	Auto	0.0000
L42	52	(Area) Aero MP3-03 (H)	38.75 - 39.75	Auto	0.0000
L42	53	(Area) Aero MP3-03 (H)	38.75 - 39.75	Auto	0.0000
L42	54	(Area) Aero MP3-03 (H)	38.75 - 39.75	Auto	0.0000
L43	26	C6x10.5	34.75 - 38.75	Auto	0.0000
L43	27	C6x10.5	34.75 - 38.75	Auto	0.0000
L43	28	C6x10.5	34.75 - 38.75	Auto	0.0000
L43	29	C6x10.5	34.75 - 38.75	Auto	0.0000
L43	36	PL 1 x 5	34.75 - 37.00	Auto	0.0000
L43	37	PL 1 x 5	34.75 - 37.00	Auto	0.0000
L43	38	PL 1 x 5	34.75 - 37.00	Auto	0.0000
L43	39	PL 1 x 5	34.75 - 37.00	Auto	0.0000
L43	41	PL 1 x 5	34.75 - 38.75	Auto	0.0000
L43	42	PL 1 x 5	34.75 - 38.75	Auto	0.0000
L43	43	PL 1 x 5	34.75 - 38.75	Auto	0.0000
L43	44	PL 1 x 5	34.75 - 38.75	Auto	0.0000
L43	51	(Area) Aero MP3-03 (H)	34.75 - 38.75	Auto	0.0000
L43	52	(Area) Aero MP3-03 (H)	34.75 - 38.75	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L43	53	(Area) Aero MP3-03 (H)	34.75 - 38.75	Auto	0.0000
L43	54	(Area) Aero MP3-03 (H)	34.75 - 38.75	Auto	0.0000
L44	26	C6x10.5	34.50 - 34.75	Auto	0.0000
L44	27	C6x10.5	34.50 - 34.75	Auto	0.0000
L44	28	C6x10.5	34.50 - 34.75	Auto	0.0000
L44	29	C6x10.5	34.50 - 34.75	Auto	0.0000
L44	36	PL 1 x 5	34.50 - 34.75	Auto	0.0000
L44	37	PL 1 x 5	34.50 - 34.75	Auto	0.0000
L44	38	PL 1 x 5	34.50 - 34.75	Auto	0.0000
L44	39	PL 1 x 5	34.50 - 34.75	Auto	0.0000
L44	41	PL 1 x 5	34.50 - 34.75	Auto	0.0000
L44	42	PL 1 x 5	34.50 - 34.75	Auto	0.0000
L44	43	PL 1 x 5	34.50 - 34.75	Auto	0.0000
L44	44	PL 1 x 5	34.50 - 34.75	Auto	0.0000
L44	51	(Area) Aero MP3-03 (H)	34.50 - 34.75	Auto	0.0000
L44	52	(Area) Aero MP3-03 (H)	34.50 - 34.75	Auto	0.0000
L44	53	(Area) Aero MP3-03 (H)	34.50 - 34.75	Auto	0.0000
L44	54	(Area) Aero MP3-03 (H)	34.50 - 34.75	Auto	0.0000
L45	26	C6x10.5	33.75 - 34.50	Auto	0.0000
L45	27	C6x10.5	33.75 - 34.50	Auto	0.0000
L45	28	C6x10.5	33.75 - 34.50	Auto	0.0000
L45	29	C6x10.5	33.75 - 34.50	Auto	0.0000
L45	36	PL 1 x 5	33.75 - 34.50	Auto	0.0000
L45	37	PL 1 x 5	33.75 - 34.50	Auto	0.0000
L45	38	PL 1 x 5	33.75 - 34.50	Auto	0.0000
L45	39	PL 1 x 5	33.75 - 34.50	Auto	0.0000
L45	41	PL 1 x 5	33.75 - 34.50	Auto	0.0000
L45	42	PL 1 x 5	33.75 - 34.50	Auto	0.0000
L45	43	PL 1 x 5	33.75 - 34.50	Auto	0.0000
L45	44	PL 1 x 5	33.75 - 34.50	Auto	0.0000
L45	51	(Area) Aero MP3-03 (H)	33.75 - 34.50	Auto	0.0000
L45	52	(Area) Aero MP3-03 (H)	33.75 - 34.50	Auto	0.0000
L45	53	(Area) Aero MP3-03 (H)	33.75 - 34.50	Auto	0.0000
L45	54	(Area) Aero MP3-03 (H)	33.75 - 34.50	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L46	26	C6x10.5	33.50 - 33.75	Auto	0.0000
L46	27	C6x10.5	33.50 - 33.75	Auto	0.0000
L46	28	C6x10.5	33.50 - 33.75	Auto	0.0000
L46	29	C6x10.5	33.50 - 33.75	Auto	0.0000
L46	36	PL 1 x 5	33.50 - 33.75	Auto	0.0000
L46	37	PL 1 x 5	33.50 - 33.75	Auto	0.0000
L46	38	PL 1 x 5	33.50 - 33.75	Auto	0.0000
L46	39	PL 1 x 5	33.50 - 33.75	Auto	0.0000
L46	41	PL 1 x 5	33.50 - 33.75	Auto	0.0000
L46	42	PL 1 x 5	33.50 - 33.75	Auto	0.0000
L46	43	PL 1 x 5	33.50 - 33.75	Auto	0.0000
L46	44	PL 1 x 5	33.50 - 33.75	Auto	0.0000
L46	51	(Area) Aero MP3-03 (H)	33.50 - 33.75	Auto	0.0000
L46	52	(Area) Aero MP3-03 (H)	33.50 - 33.75	Auto	0.0000
L46	53	(Area) Aero MP3-03 (H)	33.50 - 33.75	Auto	0.0000
L46	54	(Area) Aero MP3-03 (H)	33.50 - 33.75	Auto	0.0000
L47	26	C6x10.5	28.50 - 33.50	Auto	0.0000
L47	27	C6x10.5	28.50 - 33.50	Auto	0.0000
L47	28	C6x10.5	28.50 - 33.50	Auto	0.0000
L47	29	C6x10.5	28.50 - 33.50	Auto	0.0000
L47	36	PL 1 x 5	28.50 - 33.50	Auto	0.0000
L47	37	PL 1 x 5	28.50 - 33.50	Auto	0.0000
L47	38	PL 1 x 5	28.50 - 33.50	Auto	0.0000
L47	39	PL 1 x 5	28.50 - 33.50	Auto	0.0000
L47	41	PL 1 x 5	31.50 - 33.50	Auto	0.0000
L47	42	PL 1 x 5	31.50 - 33.50	Auto	0.0000
L47	43	PL 1 x 5	31.50 - 33.50	Auto	0.0000
L47	44	PL 1 x 5	31.50 - 33.50	Auto	0.0000
L47	51	(Area) Aero MP3-03 (H)	28.50 - 33.50	Auto	0.0000
L47	52	(Area) Aero MP3-03 (H)	28.50 - 33.50	Auto	0.0000
L47	53	(Area) Aero MP3-03 (H)	28.50 - 33.50	Auto	0.0000
L47	54	(Area) Aero MP3-03 (H)	28.50 - 33.50	Auto	0.0000
L48	26	C6x10.5	24.00 - 28.50	Auto	0.0000
L48	27	C6x10.5	24.00 - 28.50	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L48	28	C6x10.5	24.00 - 28.50	Auto	0.0000
L48	29	C6x10.5	24.00 - 28.50	Auto	0.0000
L48	31	(Area) Aero MP3-04 (H)	24.00 - 25.42	Auto	0.0000
L48	32	(Area) Aero MP3-04 (H)	24.00 - 25.42	Auto	0.0000
L48	33	(Area) Aero MP3-04 (H)	24.00 - 25.42	Auto	0.0000
L48	34	(Area) Aero MP3-04 (H)	24.00 - 25.42	Auto	0.0000
L48	36	PL 1 x 5	24.00 - 28.50	Auto	0.0000
L48	37	PL 1 x 5	24.00 - 28.50	Auto	0.0000
L48	38	PL 1 x 5	24.00 - 28.50	Auto	0.0000
L48	39	PL 1 x 5	24.00 - 28.50	Auto	0.0000
L48	51	(Area) Aero MP3-03 (H)	25.42 - 28.50	Auto	0.0000
L48	52	(Area) Aero MP3-03 (H)	25.42 - 28.50	Auto	0.0000
L48	53	(Area) Aero MP3-03 (H)	25.42 - 28.50	Auto	0.0000
L48	54	(Area) Aero MP3-03 (H)	25.42 - 28.50	Auto	0.0000
L49	26	C6x10.5	23.75 - 24.00	Auto	0.0000
L49	27	C6x10.5	23.75 - 24.00	Auto	0.0000
L49	28	C6x10.5	23.75 - 24.00	Auto	0.0000
L49	29	C6x10.5	23.75 - 24.00	Auto	0.0000
L49	31	(Area) Aero MP3-04 (H)	23.75 - 24.00	Auto	0.0000
L49	32	(Area) Aero MP3-04 (H)	23.75 - 24.00	Auto	0.0000
L49	33	(Area) Aero MP3-04 (H)	23.75 - 24.00	Auto	0.0000
L49	34	(Area) Aero MP3-04 (H)	23.75 - 24.00	Auto	0.0000
L49	36	PL 1 x 5	23.75 - 24.00	Auto	0.0000
L49	37	PL 1 x 5	23.75 - 24.00	Auto	0.0000
L49	38	PL 1 x 5	23.75 - 24.00	Auto	0.0000
L49	39	PL 1 x 5	23.75 - 24.00	Auto	0.0000
L50	26	C6x10.5	18.75 - 23.75	Auto	0.0000
L50	27	C6x10.5	18.75 - 23.75	Auto	0.0000
L50	28	C6x10.5	18.75 - 23.75	Auto	0.0000
L50	29	C6x10.5	18.75 - 23.75	Auto	0.0000
L50	31	(Area) Aero MP3-04 (H)	18.75 - 23.75	Auto	0.0000
L50	32	(Area) Aero MP3-04 (H)	18.75 - 23.75	Auto	0.0000
L50	33	(Area) Aero MP3-04 (H)	18.75 - 23.75	Auto	0.0000
L50	34	(Area) Aero MP3-04 (H)	18.75 - 23.75	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L50	36	PL 1 x 5	18.75 - 23.75	Auto	0.0000
L50	37	PL 1 x 5	18.75 - 23.75	Auto	0.0000
L50	38	PL 1 x 5	18.75 - 23.75	Auto	0.0000
L50	39	PL 1 x 5	18.75 - 23.75	Auto	0.0000
L51	26	C6x10.5	14.25 - 18.75	Auto	0.0000
L51	27	C6x10.5	14.25 - 18.75	Auto	0.0000
L51	28	C6x10.5	14.25 - 18.75	Auto	0.0000
L51	29	C6x10.5	14.25 - 18.75	Auto	0.0000
L51	31	(Area) Aero MP3-04 (H)	14.25 - 18.75	Auto	0.0000
L51	32	(Area) Aero MP3-04 (H)	14.25 - 18.75	Auto	0.0000
L51	33	(Area) Aero MP3-04 (H)	14.25 - 18.75	Auto	0.0000
L51	34	(Area) Aero MP3-04 (H)	14.25 - 18.75	Auto	0.0000
L51	36	PL 1 x 5	14.25 - 18.75	Auto	0.0000
L51	37	PL 1 x 5	14.25 - 18.75	Auto	0.0000
L51	38	PL 1 x 5	14.25 - 18.75	Auto	0.0000
L51	39	PL 1 x 5	14.25 - 18.75	Auto	0.0000
L51	46	(Area) Aero MP3-03 (H)	14.25 - 15.42	Auto	0.0000
L51	47	(Area) Aero MP3-03 (H)	14.25 - 15.42	Auto	0.0000
L51	48	(Area) Aero MP3-03 (H)	14.25 - 15.42	Auto	0.0000
L51	49	(Area) Aero MP3-03 (H)	14.25 - 15.42	Auto	0.0000
L52	26	C6x10.5	14.00 - 14.25	Auto	0.0000
L52	27	C6x10.5	14.00 - 14.25	Auto	0.0000
L52	28	C6x10.5	14.00 - 14.25	Auto	0.0000
L52	29	C6x10.5	14.00 - 14.25	Auto	0.0000
L52	31	(Area) Aero MP3-04 (H)	14.00 - 14.25	Auto	0.0000
L52	32	(Area) Aero MP3-04 (H)	14.00 - 14.25	Auto	0.0000
L52	33	(Area) Aero MP3-04 (H)	14.00 - 14.25	Auto	0.0000
L52	34	(Area) Aero MP3-04 (H)	14.00 - 14.25	Auto	0.0000
L52	36	PL 1 x 5	14.00 - 14.25	Auto	0.0000
L52	37	PL 1 x 5	14.00 - 14.25	Auto	0.0000
L52	38	PL 1 x 5	14.00 - 14.25	Auto	0.0000
L52	39	PL 1 x 5	14.00 - 14.25	Auto	0.0000
L52	46	(Area) Aero MP3-03 (H)	14.00 - 14.25	Auto	0.0000
L52	47	(Area) Aero MP3-03 (H)	14.00 - 14.25	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L52	48	(Area) Aero MP3-03 (H)	14.00 - 14.25	Auto	0.0000
L52	49	(Area) Aero MP3-03 (H)	14.00 - 14.25	Auto	0.0000
L53	26	C6x10.5	9.00 - 14.00	Auto	0.0000
L53	27	C6x10.5	9.00 - 14.00	Auto	0.0000
L53	28	C6x10.5	9.00 - 14.00	Auto	0.0000
L53	29	C6x10.5	9.00 - 14.00	Auto	0.0000
L53	31	(Area) Aero MP3-04 (H)	9.00 - 14.00	Auto	0.0000
L53	32	(Area) Aero MP3-04 (H)	9.00 - 14.00	Auto	0.0000
L53	33	(Area) Aero MP3-04 (H)	9.00 - 14.00	Auto	0.0000
L53	34	(Area) Aero MP3-04 (H)	9.00 - 14.00	Auto	0.0000
L53	36	PL 1 x 5	9.00 - 14.00	Auto	0.0000
L53	37	PL 1 x 5	9.00 - 14.00	Auto	0.0000
L53	38	PL 1 x 5	9.00 - 14.00	Auto	0.0000
L53	39	PL 1 x 5	9.00 - 14.00	Auto	0.0000
L53	46	(Area) Aero MP3-03 (H)	9.00 - 14.00	Auto	0.0000
L53	47	(Area) Aero MP3-03 (H)	9.00 - 14.00	Auto	0.0000
L53	48	(Area) Aero MP3-03 (H)	9.00 - 14.00	Auto	0.0000
L53	49	(Area) Aero MP3-03 (H)	9.00 - 14.00	Auto	0.0000
L54	26	C6x10.5	7.67 - 9.00	Auto	0.0000
L54	27	C6x10.5	8.00 - 9.00	Auto	0.0000
L54	28	C6x10.5	5.00 - 9.00	Auto	0.0000
L54	29	C6x10.5	5.00 - 9.00	Auto	0.0000
L54	31	(Area) Aero MP3-04 (H)	5.00 - 9.00	Auto	0.0000
L54	32	(Area) Aero MP3-04 (H)	5.00 - 9.00	Auto	0.0000
L54	33	(Area) Aero MP3-04 (H)	5.00 - 9.00	Auto	0.0000
L54	34	(Area) Aero MP3-04 (H)	5.00 - 9.00	Auto	0.0000
L54	36	PL 1 x 5	5.00 - 9.00	Auto	0.0000
L54	37	PL 1 x 5	5.00 - 9.00	Auto	0.0000
L54	38	PL 1 x 5	5.00 - 9.00	Auto	0.0000
L54	39	PL 1 x 5	5.00 - 9.00	Auto	0.0000
L54	46	(Area) Aero MP3-03 (H)	5.00 - 9.00	Auto	0.0000
L54	47	(Area) Aero MP3-03 (H)	5.00 - 9.00	Auto	0.0000
L54	48	(Area) Aero MP3-03 (H)	5.00 - 9.00	Auto	0.0000
L54	49	(Area) Aero MP3-03 (H)	5.00 - 9.00	Auto	0.0000
L55	28	C6x10.5	4.75 - 5.00	Auto	0.0000
L55	29	C6x10.5	4.75 - 5.00	Auto	0.0000
L55	31	(Area) Aero MP3-04 (H)	4.75 - 5.00	Auto	0.0000
L55	32	(Area) Aero MP3-04 (H)	4.75 - 5.00	Auto	0.0000
L55	33	(Area) Aero MP3-04 (H)	4.75 - 5.00	Auto	0.0000
L55	34	(Area) Aero MP3-04 (H)	4.75 - 5.00	Auto	0.0000
L55	36	PL 1 x 5	4.75 - 5.00	Auto	0.0000
L55	37	PL 1 x 5	4.75 - 5.00	Auto	0.0000
L55	38	PL 1 x 5	4.75 - 5.00	Auto	0.0000
L55	39	PL 1 x 5	4.75 - 5.00	Auto	0.0000
L55	46	(Area) Aero MP3-03 (H)	4.75 - 5.00	Auto	0.0000
L55	47	(Area) Aero MP3-03 (H)	4.75 - 5.00	Auto	0.0000
L55	48	(Area) Aero MP3-03 (H)	4.75 - 5.00	Auto	0.0000
L55	49	(Area) Aero MP3-03 (H)	4.75 - 5.00	Auto	0.0000
L56	28	C6x10.5	4.50 - 4.75	Auto	0.0000
L56	29	C6x10.5	4.50 - 4.75	Auto	0.0000
L56	31	(Area) Aero MP3-04 (H)	4.50 - 4.75	Auto	0.0000
L56	32	(Area) Aero MP3-04 (H)	4.50 - 4.75	Auto	0.0000
L56	33	(Area) Aero MP3-04 (H)	4.50 - 4.75	Auto	0.0000
L56	34	(Area) Aero MP3-04 (H)	4.50 - 4.75	Auto	0.0000
L56	36	PL 1 x 5	4.50 - 4.75	Auto	0.0000
L56	37	PL 1 x 5	4.50 - 4.75	Auto	0.0000
L56	38	PL 1 x 5	4.50 - 4.75	Auto	0.0000
L56	39	PL 1 x 5	4.50 - 4.75	Auto	0.0000
L56	46	(Area) Aero MP3-03 (H)	4.50 - 4.75	Auto	0.0000
L56	47	(Area) Aero MP3-03 (H)	4.50 - 4.75	Auto	0.0000
L56	48	(Area) Aero MP3-03 (H)	4.50 - 4.75	Auto	0.0000
L56	49	(Area) Aero MP3-03 (H)	4.50 - 4.75	Auto	0.0000
L57	28	C6x10.5	0.00 - 4.50	Auto	0.0000
L57	29	C6x10.5	0.00 - 4.50	Auto	0.0000
L57	31	(Area) Aero MP3-04 (H)	0.00 - 4.50	Auto	0.0000
L57	32	(Area) Aero MP3-04 (H)	0.00 - 4.50	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L57	33	(Area) Aero MP3-04 (H)	0.00 - 4.50	Auto	0.0000
L57	34	(Area) Aero MP3-04 (H)	0.00 - 4.50	Auto	0.0000
L57	36	PL 1 x 5	2.50 - 4.50	Auto	0.0000
L57	37	PL 1 x 5	2.50 - 4.50	Auto	0.0000
L57	38	PL 1 x 5	2.50 - 4.50	Auto	0.0000
L57	39	PL 1 x 5	2.50 - 4.50	Auto	0.0000
L57	46	(Area) Aero MP3-03 (H)	0.00 - 4.50	Auto	0.0000
L57	47	(Area) Aero MP3-03 (H)	0.00 - 4.50	Auto	0.0000
L57	48	(Area) Aero MP3-03 (H)	0.00 - 4.50	Auto	0.0000
L57	49	(Area) Aero MP3-03 (H)	0.00 - 4.50	Auto	0.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	CA _{AA} Front ft ²	CA _{AA} Side ft ²	Weight K
Miscl								
Pipe 6" x 10'	C	From Leg	0.00 0.00 5.00	0.0000	120.00	No Ice 3.23 1/2" 6.05 Ice 6.66 1" Ice 7.92 2" Ice	3.23 6.05 6.66 7.92	0.19 0.23 0.28 0.40
122								
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Centroid-Leg	4.00 -7.00 -1.00	30.0000	122.00	No Ice 4.09 1/2" 4.48 Ice 4.88 1" Ice 5.71 2" Ice	2.86 3.23 3.61 4.40	0.08 0.13 0.19 0.33
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Centroid-Leg	4.00 -7.00 -1.00	10.0000	122.00	No Ice 4.09 1/2" 4.48 Ice 4.88 1" Ice 5.71 2" Ice	2.86 3.23 3.61 4.40	0.08 0.13 0.19 0.33
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Centroid-Leg	4.00 3.00 -1.00	30.0000	122.00	No Ice 4.09 1/2" 4.48 Ice 4.88 1" Ice 5.71 2" Ice	2.86 3.23 3.61 4.40	0.08 0.13 0.19 0.33
APXVSPP18-C-A20 w/ Mount Pipe	A	From Centroid-Leg	4.00 -3.00 -1.00	30.0000	122.00	No Ice 4.60 1/2" 5.05 Ice 5.50 1" Ice 6.44 2" Ice	4.01 4.45 4.89 5.82	0.10 0.16 0.23 0.42
APXVSPP18-C-A20 w/ Mount Pipe	B	From Centroid-Leg	4.00 -3.00 -1.00	10.0000	122.00	No Ice 4.60 1/2" 5.05 Ice 5.50 1" Ice 6.44 2" Ice	4.01 4.45 4.89 5.82	0.10 0.16 0.23 0.42
APXVSPP18-C-A20 w/ Mount Pipe	C	From Centroid-Leg	4.00 -3.00 -1.00	30.0000	122.00	No Ice 4.60 1/2" 5.05 Ice 5.50 1" Ice 6.44 2" Ice	4.01 4.45 4.89 5.82	0.10 0.16 0.23 0.42
MT-485025/NVH w/ Mount Pipe	C	From Centroid-Leg	4.00 -7.00 1.00	30.0000	122.00	No Ice 1.95 1/2" 2.18 Ice 2.43 1" Ice 2.94 2" Ice	0.62 0.86 1.11 1.65	0.01 0.03 0.05 0.10

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight
			Horz	Lateral					
			ft	ft	°	ft	ft ²	ft ²	K
(3) ACU-A20-N	A	From Centroid-Leg	4.00	30.0000	122.00	No Ice	0.07	0.12	0.00
			-3.00			1/2"	0.10	0.16	0.00
			-2.00			Ice	0.15	0.21	0.00
						1" Ice	0.26	0.34	0.01
						2" Ice			
(3) ACU-A20-N	B	From Centroid-Leg	4.00	10.0000	122.00	No Ice	0.07	0.12	0.00
			-3.00			1/2"	0.10	0.16	0.00
			-2.00			Ice	0.15	0.21	0.00
						1" Ice	0.26	0.34	0.01
						2" Ice			
(3) ACU-A20-N	C	From Centroid-Leg	4.00	30.0000	122.00	No Ice	0.07	0.12	0.00
			-3.00			1/2"	0.10	0.16	0.00
			-2.00			Ice	0.15	0.21	0.00
						1" Ice	0.26	0.34	0.01
						2" Ice			
PCS 1900MHz 4x45W-65MHz	A	From Centroid-Leg	4.00	30.0000	122.00	No Ice	2.32	2.24	0.06
			-3.00			1/2"	2.53	2.44	0.08
			-1.00			Ice	2.74	2.65	0.11
						1" Ice	3.19	3.09	0.17
						2" Ice			
PCS 1900MHz 4x45W-65MHz	B	From Centroid-Leg	4.00	10.0000	122.00	No Ice	2.32	2.24	0.06
			-3.00			1/2"	2.53	2.44	0.08
			-2.00			Ice	2.74	2.65	0.11
						1" Ice	3.19	3.09	0.17
						2" Ice			
PCS 1900MHz 4x45W-65MHz	C	From Centroid-Leg	4.00	30.0000	122.00	No Ice	2.32	2.24	0.06
			-3.00			1/2"	2.53	2.44	0.08
			-1.00			Ice	2.74	2.65	0.11
						1" Ice	3.19	3.09	0.17
						2" Ice			
800MHZ RRH	A	From Centroid-Leg	4.00	30.0000	122.00	No Ice	2.13	1.77	0.05
			-3.00			1/2"	2.32	1.95	0.07
			-2.00			Ice	2.51	2.13	0.10
						1" Ice	2.92	2.51	0.16
						2" Ice			
800MHZ RRH	B	From Centroid-Leg	4.00	10.0000	122.00	No Ice	2.13	1.77	0.05
			-3.00			1/2"	2.32	1.95	0.07
			-1.00			Ice	2.51	2.13	0.10
						1" Ice	2.92	2.51	0.16
						2" Ice			
800MHZ RRH	C	From Centroid-Leg	4.00	30.0000	122.00	No Ice	2.13	1.77	0.05
			-3.00			1/2"	2.32	1.95	0.07
			-2.00			Ice	2.51	2.13	0.10
						1" Ice	2.92	2.51	0.16
						2" Ice			
800 EXTERNAL NOTCH FILTER	A	From Centroid-Leg	4.00	30.0000	122.00	No Ice	0.66	0.32	0.01
			-3.00			1/2"	0.76	0.40	0.02
			-2.00			Ice	0.87	0.48	0.02
						1" Ice	1.11	0.67	0.04
						2" Ice			
800 EXTERNAL NOTCH FILTER	B	From Centroid-Leg	4.00	10.0000	122.00	No Ice	0.66	0.32	0.01
			-3.00			1/2"	0.76	0.40	0.02
			-2.00			Ice	0.87	0.48	0.02
						1" Ice	1.11	0.67	0.04
						2" Ice			
800 EXTERNAL NOTCH FILTER	C	From Centroid-Leg	4.00	30.0000	122.00	No Ice	0.66	0.32	0.01
			-3.00			1/2"	0.76	0.40	0.02
			-2.00			Ice	0.87	0.48	0.02
						1" Ice	1.11	0.67	0.04
						2" Ice			
TD-RRH8x20-25	A	From Centroid-Leg	4.00	37.0000	122.00	No Ice	4.05	1.53	0.07
			3.00			1/2"	4.30	1.71	0.10
			-1.00			Ice	4.56	1.90	0.13
						1" Ice	5.10	2.30	0.20
						2" Ice			

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
			Horz ft	Lateral Vert ft					
TD-RRH8x20-25	B	From Centroid-Leg	4.00	10.0000	122.00	No Ice	4.05	1.53	0.07
			3.00	3.00		1/2" Ice	4.30	1.71	0.10
			-1.00	-1.00		Ice	4.56	1.90	0.13
						1" Ice	5.10	2.30	0.20
						2" Ice			
TD-RRH8x20-25	C	From Centroid-Leg	4.00	30.0000	122.00	No Ice	4.05	1.53	0.07
			3.00	3.00		1/2" Ice	4.30	1.71	0.10
			-1.00	-1.00		Ice	4.56	1.90	0.13
						1" Ice	5.10	2.30	0.20
						2" Ice			
(3) 4' x 2" Pipe Mount	A	From Centroid-Leg	4.00	0.0000	122.00	No Ice	0.79	0.79	0.03
			0.00	0.00		1/2" Ice	1.03	1.03	0.04
			0.00	0.00		Ice	1.28	1.28	0.04
						1" Ice	1.81	1.81	0.07
						2" Ice			
(3) 4' x 2" Pipe Mount	B	From Centroid-Leg	4.00	0.0000	122.00	No Ice	0.79	0.79	0.03
			0.00	0.00		1/2" Ice	1.03	1.03	0.04
			0.00	0.00		Ice	1.28	1.28	0.04
						1" Ice	1.81	1.81	0.07
						2" Ice			
(2) 4' x 2" Pipe Mount	C	From Centroid-Leg	4.00	0.0000	122.00	No Ice	0.79	0.79	0.03
			0.00	0.00		1/2" Ice	1.03	1.03	0.04
			0.00	0.00		Ice	1.28	1.28	0.04
						1" Ice	1.81	1.81	0.07
						2" Ice			
Platform Mount [LP 1201-1_HR-1]	C	None		0.0000	122.00	No Ice	26.39	26.39	2.36
						1/2" Ice	31.40	31.40	3.06
						Ice	36.20	36.20	3.86
						1" Ice	45.40	45.40	5.76
						2" Ice			
113 JAHH-65B-R3B w/ Mount Pipe	A	From Centroid-Leg	4.00	0.0000	113.00	No Ice	5.50	4.38	0.10
			-3.00	-3.00		1/2" Ice	5.97	4.84	0.17
			1.00	1.00		Ice	6.45	5.30	0.25
						1" Ice	7.44	6.26	0.46
						2" Ice			
JAHH-45B-R3B w/ Mount Pipe	B	From Centroid-Leg	4.00	-40.0000	113.00	No Ice	8.26	4.39	0.12
			-6.00	-6.00		1/2" Ice	8.83	4.91	0.20
			1.00	1.00		Ice	9.41	5.43	0.29
						1" Ice	10.61	6.53	0.50
						2" Ice			
JAHH-45B-R3B w/ Mount Pipe	C	From Centroid-Leg	4.00	30.0000	113.00	No Ice	8.26	4.39	0.12
			0.00	0.00		1/2" Ice	8.83	4.91	0.20
			1.00	1.00		Ice	9.41	5.43	0.29
						1" Ice	10.61	6.53	0.50
						2" Ice			
JAHH-65B-R3B w/ Mount Pipe	A	From Centroid-Leg	4.00	0.0000	113.00	No Ice	5.50	4.38	0.10
			-3.00	-3.00		1/2" Ice	5.97	4.84	0.17
			1.00	1.00		Ice	6.45	5.30	0.25
						1" Ice	7.44	6.26	0.46
						2" Ice			
JAHH-45B-R3B w/ Mount Pipe	B	From Centroid-Leg	4.00	-40.0000	113.00	No Ice	8.26	4.39	0.12
			-6.00	-6.00		1/2" Ice	8.83	4.91	0.20
			1.00	1.00		Ice	9.41	5.43	0.29
						1" Ice	10.61	6.53	0.50
						2" Ice			
JAHH-45B-R3B w/ Mount Pipe	C	From Centroid-Leg	4.00	30.0000	113.00	No Ice	8.26	4.39	0.12
			0.00	0.00		1/2" Ice	8.83	4.91	0.20
			1.00	1.00		Ice	9.41	5.43	0.29
						1" Ice	10.61	6.53	0.50
						2" Ice			
(2) DB846F65ZAXY w/ Mount Pipe	A	From Centroid-Leg	4.00	30.0000	113.00	No Ice	6.10	6.81	0.06
			4.00	4.00		1/2" Ice	6.80	7.52	0.12
			1.00	1.00		Ice	7.51	8.24	0.19
						1" Ice	8.98	9.73	0.37
						2" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
(2) LPA-80063/4CF w/ Mount Pipe	B	From Centroid-Leg	4.00 4.00 1.00	10.0000	113.00	2" Ice			
						No Ice	6.38	6.60	0.04
						1/2" Ice	6.78	7.23	0.10
						1" Ice	7.19	7.88	0.18
(2) LPA-80063/4CF w/ Mount Pipe	C	From Centroid-Leg	4.00 0.00 1.00	30.0000	113.00	2" Ice			
						No Ice	6.38	6.60	0.04
						1/2" Ice	6.78	7.23	0.10
						1" Ice	7.19	7.88	0.18
CBRS w/ Mount Pipe	A	From Centroid-Leg	4.00 0.00 1.00	0.0000	113.00	2" Ice			
						No Ice	1.45	0.99	0.03
						1/2" Ice	1.67	1.18	0.05
						1" Ice	1.90	1.39	0.07
CBRS w/ Mount Pipe	B	From Centroid-Leg	4.00 0.00 1.00	-40.0000	113.00	2" Ice			
						No Ice	1.45	0.99	0.03
						1/2" Ice	1.67	1.18	0.05
						1" Ice	1.90	1.39	0.07
CBRS w/ Mount Pipe	C	From Centroid-Leg	4.00 3.00 1.00	30.0000	113.00	2" Ice			
						No Ice	1.45	0.99	0.03
						1/2" Ice	1.67	1.18	0.05
						1" Ice	1.90	1.39	0.07
(2) RFV01U-D1A	A	From Centroid-Leg	4.00 4.00 1.00	30.0000	113.00	2" Ice			
						No Ice	0.00	1.25	0.08
						1/2" Ice	2.05	1.39	0.10
						1" Ice	2.22	1.54	0.12
RFV01U-D1A	C	From Centroid-Leg	4.00 0.00 1.00	30.0000	113.00	2" Ice			
						No Ice	0.00	1.25	0.08
						1/2" Ice	2.05	1.39	0.10
						1" Ice	2.22	1.54	0.12
(2) RFV01U-D2A	B	From Centroid-Leg	4.00 4.00 1.00	10.0000	113.00	2" Ice			
						No Ice	0.00	1.01	0.07
						1/2" Ice	2.05	1.14	0.09
						1" Ice	2.22	1.28	0.11
RFV01U-D2A	C	From Centroid-Leg	4.00 -6.00 1.00	30.0000	113.00	2" Ice			
						No Ice	0.00	1.01	0.07
						1/2" Ice	2.05	1.14	0.09
						1" Ice	2.22	1.28	0.11
DB-T1-6Z-8AB-0Z	A	From Centroid-Leg	4.00 0.00 1.00	0.0000	113.00	2" Ice			
						No Ice	4.80	2.00	0.04
						1/2" Ice	5.07	2.19	0.08
						1" Ice	5.35	2.39	0.12
DB-T1-6Z-8AB-0Z	B	From Centroid-Leg	4.00 0.00 1.00	-40.0000	113.00	2" Ice			
						No Ice	4.80	2.00	0.04
						1/2" Ice	5.07	2.19	0.08
						1" Ice	5.35	2.39	0.12
CBC78T-DS-43-2X	A	From Centroid-Leg	4.00 -3.00 1.00	0.0000	113.00	2" Ice			
						No Ice	0.37	0.51	0.02
						1/2" Ice	0.45	0.60	0.03
						1" Ice	0.53	0.70	0.04
CBC78T-DS-43-2X	B	From Centroid-Leg	4.00 -6.00 1.00	-40.0000	113.00	2" Ice			
						No Ice	0.37	0.51	0.02
						1/2" Ice	0.45	0.60	0.03
						1" Ice	0.53	0.70	0.04

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight	
			Horz	Vert						
			Lateral	ft	°	ft	ft ²	ft ²	K	
CBC78T-DS-43-2X	C	From Centroid-Leg	4.00	3.00	30.0000	113.00	2" Ice			
							No Ice	0.37	0.51	0.02
							1/2" Ice	0.45	0.60	0.03
							Ice	0.53	0.70	0.04
							1" Ice	0.72	0.93	0.06
Platform Mount [LP 305-1_KCKR-HR-1]	C	None			0.0000	113.00	2" Ice			
							No Ice	30.81	30.81	1.64
							1/2" Ice	38.70	38.70	2.20
							Ice	46.63	46.63	2.88
							1" Ice	62.74	62.74	4.65
105 AIR 3246 B66 w/ Mount Pipe	A	From Centroid-Leg	4.00	-6.00	30.0000	105.00	2" Ice			
							No Ice	7.31	5.46	0.20
							1/2" Ice	7.89	6.00	0.27
							Ice	8.48	6.57	0.34
							1" Ice	9.72	7.74	0.52
AIR 3246 B66 w/ Mount Pipe	B	From Centroid-Leg	4.00	-6.00	30.0000	105.00	2" Ice			
							No Ice	7.31	5.46	0.20
							1/2" Ice	7.89	6.00	0.27
							Ice	8.48	6.57	0.34
							1" Ice	9.72	7.74	0.52
AIR 3246 B66 w/ Mount Pipe	C	From Centroid-Leg	4.00	-6.00	30.0000	105.00	2" Ice			
							No Ice	7.31	5.46	0.20
							1/2" Ice	7.89	6.00	0.27
							Ice	8.48	6.57	0.34
							1" Ice	9.72	7.74	0.52
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Centroid-Leg	4.00	-2.00	30.0000	105.00	2" Ice			
							No Ice	14.69	6.87	0.19
							1/2" Ice	15.46	7.55	0.31
							Ice	16.23	8.25	0.46
							1" Ice	17.82	9.67	0.79
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Centroid-Leg	4.00	-2.00	30.0000	105.00	2" Ice			
							No Ice	14.69	6.87	0.19
							1/2" Ice	15.46	7.55	0.31
							Ice	16.23	8.25	0.46
							1" Ice	17.82	9.67	0.79
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Centroid-Leg	4.00	-2.00	30.0000	105.00	2" Ice			
							No Ice	14.69	6.87	0.19
							1/2" Ice	15.46	7.55	0.31
							Ice	16.23	8.25	0.46
							1" Ice	17.82	9.67	0.79
AIR 32 B2a/B66Aa w/ Mount Pipe	A	From Centroid-Leg	4.00	2.00	30.0000	105.00	2" Ice			
							No Ice	3.76	3.15	0.19
							1/2" Ice	4.12	3.49	0.25
							Ice	4.48	3.84	0.32
							1" Ice	5.24	4.58	0.48
AIR 32 B2a/B66Aa w/ Mount Pipe	B	From Centroid-Leg	4.00	2.00	30.0000	105.00	2" Ice			
							No Ice	3.76	3.15	0.19
							1/2" Ice	4.12	3.49	0.25
							Ice	4.48	3.84	0.32
							1" Ice	5.24	4.58	0.48
AIR 32 B2a/B66Aa w/ Mount Pipe	C	From Centroid-Leg	4.00	2.00	30.0000	105.00	2" Ice			
							No Ice	3.76	3.15	0.19
							1/2" Ice	4.12	3.49	0.25
							Ice	4.48	3.84	0.32
							1" Ice	5.24	4.58	0.48
AIR6449 B41 w/ Mount Pipe	A	From Centroid-Leg	4.00	6.00	30.0000	105.00	2" Ice			
							No Ice	5.18	2.72	0.12
							1/2" Ice	5.59	3.05	0.16
							Ice	6.01	3.39	0.22
							1" Ice	6.90	4.13	0.34
AIR6449 B41 w/ Mount Pipe	B	From Centroid-Leg	4.00	6.00	30.0000	105.00	2" Ice			
							No Ice	5.18	2.72	0.12
							1/2" Ice	5.59	3.05	0.16
							Ice	6.01	3.39	0.22
							1" Ice	6.90	4.13	0.34

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K	
			Horz ft	Lateral ft						Vert ft
AIR6449 B41 w/ Mount Pipe	C	From Centroid-Leg	4.00	6.00	30.0000	105.00	1" Ice	6.90	4.13	0.34
							2" Ice			
							No Ice	5.18	2.72	0.12
							1/2" Ice	5.59	3.05	0.16
							Ice	6.01	3.39	0.22
RADIO 4449 B71/B85A	A	From Centroid-Leg	4.00	-2.00	30.0000	105.00	1" Ice	6.90	4.13	0.34
							2" Ice			
							No Ice	1.64	1.31	0.07
							1/2" Ice	1.80	1.46	0.09
							Ice	1.97	1.61	0.11
RADIO 4449 B71/B85A	B	From Centroid-Leg	4.00	-2.00	30.0000	105.00	1" Ice	2.33	1.94	0.16
							2" Ice			
							No Ice	1.64	1.31	0.07
							1/2" Ice	1.80	1.46	0.09
							Ice	1.97	1.61	0.11
RADIO 4449 B71/B85A	C	From Centroid-Leg	4.00	-2.00	30.0000	105.00	1" Ice	2.33	1.94	0.16
							2" Ice			
							No Ice	1.64	1.31	0.07
							1/2" Ice	1.80	1.46	0.09
							Ice	1.97	1.61	0.11
RRUS 4415 B25_CCIV2	A	From Centroid-Leg	4.00	6.00	30.0000	105.00	1" Ice	2.57	1.37	0.12
							2" Ice			
							No Ice	1.84	0.82	0.05
							1/2" Ice	2.01	0.94	0.06
							Ice	2.19	1.07	0.08
RRUS 4415 B25_CCIV2	B	From Centroid-Leg	4.00	6.00	30.0000	105.00	1" Ice	2.57	1.37	0.12
							2" Ice			
							No Ice	1.84	0.82	0.05
							1/2" Ice	2.01	0.94	0.06
							Ice	2.19	1.07	0.08
RRUS 4415 B25_CCIV2	C	From Centroid-Leg	4.00	6.00	30.0000	105.00	1" Ice	2.57	1.37	0.12
							2" Ice			
							No Ice	1.84	0.82	0.05
							1/2" Ice	2.01	0.94	0.06
							Ice	2.19	1.07	0.08
SitePro1 RMQP-4096-HK	C	None			0.0000	105.00	1" Ice	43.26	41.56	3.50
							2" Ice			
							No Ice	23.14	21.40	1.95
							1/2" Ice	28.17	26.44	2.34
							Ice	33.23	31.60	2.85
97 DC6-48-60-18-8F	A	From Leg	2.00	0.00	30.0000	97.00	1" Ice	2.57	2.57	0.13
							2" Ice			
							No Ice	1.21	1.21	0.02
							1/2" Ice	1.89	1.89	0.04
							Ice	2.11	2.11	0.07
DC6-48-60-18-8F	B	From Leg	2.00	0.00	30.0000	97.00	1" Ice	2.57	2.57	0.13
							2" Ice			
							No Ice	1.21	1.21	0.02
							1/2" Ice	1.89	1.89	0.04
							Ice	2.11	2.11	0.07
RRUS 32 B30	A	From Leg	2.00	0.00	30.0000	97.00	1" Ice	3.61	2.35	0.16
							2" Ice			
							No Ice	2.69	1.57	0.06
							1/2" Ice	2.91	1.76	0.08
							Ice	3.14	1.95	0.10
RRUS 32 B30	B	From Leg	2.00	0.00	30.0000	97.00	1" Ice	3.61	2.35	0.16
							2" Ice			
							No Ice	2.69	1.57	0.06
							1/2" Ice	2.91	1.76	0.08
							Ice	3.14	1.95	0.10
RRUS 32 B30	C	From Leg	2.00	0.00	30.0000	97.00	1" Ice	3.61	2.35	0.16
							2" Ice			
							No Ice	2.69	1.57	0.06

Description	Face or Leg	Offset Type	Offsets:			Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight
			Horz	Lateral	Vert					
			ft	ft	ft	°	ft	ft ²	ft ²	K
			0.00				1/2"	3.14	1.95	0.10
							Ice	3.61	2.35	0.16
							1" Ice			
							2" Ice			
2.4" Dia. x 5-ft Pipe	A	From Leg	2.00	0.0000	97.00		No Ice	1.20	1.20	0.02
			0.00				1/2"	1.50	1.50	0.03
			0.00				Ice	1.81	1.81	0.04
							1" Ice	2.47	2.47	0.08
							2" Ice			
2.4" Dia. x 5-ft Pipe	B	From Leg	2.00	0.0000	97.00		No Ice	1.20	1.20	0.02
			0.00				1/2"	1.50	1.50	0.03
			0.00				Ice	1.81	1.81	0.04
							1" Ice	2.47	2.47	0.08
							2" Ice			
2.4" Dia. x 5-ft Pipe	C	From Leg	2.00	0.0000	97.00		No Ice	1.20	1.20	0.02
			0.00				1/2"	1.50	1.50	0.03
			0.00				Ice	1.81	1.81	0.04
							1" Ice	2.47	2.47	0.08
							2" Ice			
Side Arm Mount [SO 102-3]	C	None		0.0000	97.00		No Ice	3.60	3.60	0.07
							1/2"	4.18	4.18	0.11
							Ice	4.75	4.75	0.14
							1" Ice	5.90	5.90	0.20
							2" Ice			
96										
7770.00 w/ Mount Pipe	A	From Centroid-Leg	4.00	23.0000	96.00		No Ice	5.75	4.25	0.06
			-6.00				1/2"	6.18	5.01	0.10
			2.00				Ice	6.61	5.71	0.16
							1" Ice	7.49	7.16	0.29
							2" Ice			
7770.00 w/ Mount Pipe	B	From Centroid-Leg	4.00	23.0000	96.00		No Ice	5.75	4.25	0.06
			-6.00				1/2"	6.18	5.01	0.10
			2.00				Ice	6.61	5.71	0.16
							1" Ice	7.49	7.16	0.29
							2" Ice			
7770.00 w/ Mount Pipe	C	From Centroid-Leg	4.00	23.0000	96.00		No Ice	5.75	4.25	0.06
			-6.00				1/2"	6.18	5.01	0.10
			2.00				Ice	6.61	5.71	0.16
							1" Ice	7.49	7.16	0.29
							2" Ice			
(2) 80010965 w/ Mount Pipe	A	From Centroid-Leg	4.00	30.0000	96.00		No Ice	12.26	5.79	0.14
			0.00				1/2"	13.03	6.47	0.23
			2.00				Ice	13.80	7.17	0.33
							1" Ice	15.41	8.60	0.57
							2" Ice			
(2) 80010965 w/ Mount Pipe	B	From Centroid-Leg	4.00	30.0000	96.00		No Ice	12.26	5.79	0.14
			0.00				1/2"	13.03	6.47	0.23
			2.00				Ice	13.80	7.17	0.33
							1" Ice	15.41	8.60	0.57
							2" Ice			
(2) 80010965 w/ Mount Pipe	C	From Centroid-Leg	4.00	30.0000	96.00		No Ice	12.26	5.79	0.14
			0.00				1/2"	13.03	6.47	0.23
			2.00				Ice	13.80	7.17	0.33
							1" Ice	15.41	8.60	0.57
							2" Ice			
QS66512-2 w/ Mount Pipe	A	From Centroid-Leg	4.00	30.0000	96.00		No Ice	4.04	4.18	0.14
			6.00				1/2"	4.42	4.57	0.21
			2.00				Ice	4.82	4.97	0.29
							1" Ice	5.63	5.79	0.48
							2" Ice			
QS66512-2 w/ Mount Pipe	B	From Centroid-Leg	4.00	30.0000	96.00		No Ice	4.04	4.18	0.14
			6.00				1/2"	4.42	4.57	0.21
			2.00				Ice	4.82	4.97	0.29
							1" Ice	5.63	5.79	0.48
							2" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
QS66512-2 w/ Mount Pipe	C	From Centroid-Leg	4.00	30.0000	96.00	No Ice	4.04	4.18	0.14
			6.00			1/2" Ice	4.42	4.57	0.21
			2.00			Ice	4.82	4.97	0.29
						1" Ice	5.63	5.79	0.48
						2" Ice			
LGP21401	A	From Centroid-Leg	4.00	23.0000	96.00	No Ice	1.10	0.21	0.01
			-6.00			1/2" Ice	1.24	0.27	0.02
			2.00			Ice	1.38	0.35	0.03
						1" Ice	1.69	0.52	0.05
						2" Ice			
LGP21401	A	From Centroid-Leg	4.00	30.0000	96.00	No Ice	1.10	0.21	0.01
			6.00			1/2" Ice	1.24	0.27	0.02
			2.00			Ice	1.38	0.35	0.03
						1" Ice	1.69	0.52	0.05
						2" Ice			
LGP21401	B	From Centroid-Leg	4.00	23.0000	96.00	No Ice	1.10	0.21	0.01
			-6.00			1/2" Ice	1.24	0.27	0.02
			2.00			Ice	1.38	0.35	0.03
						1" Ice	1.69	0.52	0.05
						2" Ice			
LGP21401	B	From Centroid-Leg	4.00	30.0000	96.00	No Ice	1.10	0.21	0.01
			6.00			1/2" Ice	1.24	0.27	0.02
			2.00			Ice	1.38	0.35	0.03
						1" Ice	1.69	0.52	0.05
						2" Ice			
LGP21401	C	From Centroid-Leg	4.00	23.0000	96.00	No Ice	1.10	0.21	0.01
			-6.00			1/2" Ice	1.24	0.27	0.02
			2.00			Ice	1.38	0.35	0.03
						1" Ice	1.69	0.52	0.05
						2" Ice			
LGP21401	C	From Centroid-Leg	4.00	30.0000	96.00	No Ice	1.10	0.21	0.01
			6.00			1/2" Ice	1.24	0.27	0.02
			2.00			Ice	1.38	0.35	0.03
						1" Ice	1.69	0.52	0.05
						2" Ice			
DC6-48-60-18-8F	A	From Centroid-Leg	4.00	23.0000	96.00	No Ice	1.21	1.21	0.02
			-6.00			1/2" Ice	1.89	1.89	0.04
			2.00			Ice	2.11	2.11	0.07
						1" Ice	2.57	2.57	0.13
						2" Ice			
DC6-48-60-18-8F	B	From Centroid-Leg	4.00	23.0000	96.00	No Ice	1.21	1.21	0.02
			-6.00			1/2" Ice	1.89	1.89	0.04
			2.00			Ice	2.11	2.11	0.07
						1" Ice	2.57	2.57	0.13
						2" Ice			
DC6-48-60-18-8F	C	From Centroid-Leg	4.00	23.0000	96.00	No Ice	1.21	1.21	0.02
			-6.00			1/2" Ice	1.89	1.89	0.04
			2.00			Ice	2.11	2.11	0.07
						1" Ice	2.57	2.57	0.13
						2" Ice			
WCS-IMFQ-AMT	A	From Centroid-Leg	4.00	30.0000	96.00	No Ice	0.99	0.64	0.03
			2.00			1/2" Ice	1.11	0.75	0.04
			2.00			Ice	1.25	0.86	0.05
						1" Ice	1.53	1.11	0.08
						2" Ice			
WCS-IMFQ-AMT	C	From Centroid-Leg	4.00	30.0000	96.00	No Ice	0.99	0.64	0.03
			-2.00			1/2" Ice	1.11	0.75	0.04
			2.00			Ice	1.25	0.86	0.05
						1" Ice	1.53	1.11	0.08
						2" Ice			
DBC0061F1V51-2	A	From Centroid-Leg	4.00	23.0000	96.00	No Ice	0.41	0.43	0.03
			-6.00			1/2" Ice	0.50	0.52	0.03
			2.00			Ice	0.59	0.61	0.04
						1" Ice	0.79	0.81	0.06
						2" Ice			

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C _A A _A		Weight K
			Horz ft	Lateral ft			Front ft ²	Side ft ²	
DBC0061F1V51-2	A	From Centroid-Leg	4.00	30.0000	96.00	No Ice	0.41	0.43	0.03
			-2.00			1/2" Ice	0.50	0.52	0.03
			2.00			Ice	0.59	0.61	0.04
						1" Ice	0.79	0.81	0.06
						2" Ice			
DBC0061F1V51-2	B	From Centroid-Leg	4.00	23.0000	96.00	No Ice	0.41	0.43	0.03
			-6.00			1/2" Ice	0.50	0.52	0.03
			2.00			Ice	0.59	0.61	0.04
						1" Ice	0.79	0.81	0.06
						2" Ice			
DBC0061F1V51-2	B	From Centroid-Leg	4.00	30.0000	96.00	No Ice	0.41	0.43	0.03
			-2.00			1/2" Ice	0.50	0.52	0.03
			2.00			Ice	0.59	0.61	0.04
						1" Ice	0.79	0.81	0.06
						2" Ice			
DBC0061F1V51-2	C	From Centroid-Leg	4.00	23.0000	96.00	No Ice	0.41	0.43	0.03
			-6.00			1/2" Ice	0.50	0.52	0.03
			2.00			Ice	0.59	0.61	0.04
						1" Ice	0.79	0.81	0.06
						2" Ice			
DBC0061F1V51-2	C	From Centroid-Leg	4.00	30.0000	96.00	No Ice	0.41	0.43	0.03
			-2.00			1/2" Ice	0.50	0.52	0.03
			2.00			Ice	0.59	0.61	0.04
						1" Ice	0.79	0.81	0.06
						2" Ice			
RRUS 8843 B2/B66A	A	From Centroid-Leg	4.00	23.0000	96.00	No Ice	1.64	1.35	0.07
			-6.00			1/2" Ice	1.80	1.50	0.09
			2.00			Ice	1.97	1.65	0.11
						1" Ice	2.32	1.99	0.16
						2" Ice			
RRUS 8843 B2/B66A	B	From Centroid-Leg	4.00	23.0000	96.00	No Ice	1.64	1.35	0.07
			-6.00			1/2" Ice	1.80	1.50	0.09
			2.00			Ice	1.97	1.65	0.11
						1" Ice	2.32	1.99	0.16
						2" Ice			
RRUS 8843 B2/B66A	C	From Centroid-Leg	4.00	23.0000	96.00	No Ice	1.64	1.35	0.07
			-6.00			1/2" Ice	1.80	1.50	0.09
			2.00			Ice	1.97	1.65	0.11
						1" Ice	2.32	1.99	0.16
						2" Ice			
RRUS 32	A	From Centroid-Leg	4.00	30.0000	96.00	No Ice	2.86	1.78	0.06
			-2.00			1/2" Ice	3.08	1.97	0.08
			2.00			Ice	3.32	2.17	0.10
						1" Ice	3.81	2.58	0.16
						2" Ice			
RRUS 32	B	From Centroid-Leg	4.00	30.0000	96.00	No Ice	2.86	1.78	0.06
			-2.00			1/2" Ice	3.08	1.97	0.08
			2.00			Ice	3.32	2.17	0.10
						1" Ice	3.81	2.58	0.16
						2" Ice			
RRUS 32	C	From Centroid-Leg	4.00	30.0000	96.00	No Ice	2.86	1.78	0.06
			-2.00			1/2" Ice	3.08	1.97	0.08
			2.00			Ice	3.32	2.17	0.10
						1" Ice	3.81	2.58	0.16
						2" Ice			
RRUS 4478 B14	A	From Centroid-Leg	4.00	30.0000	96.00	No Ice	1.84	1.06	0.06
			2.00			1/2" Ice	2.01	1.20	0.08
			2.00			Ice	2.19	1.34	0.09
						1" Ice	2.57	1.66	0.14
						2" Ice			
RRUS 4478 B14	B	From Centroid-Leg	4.00	30.0000	96.00	No Ice	1.84	1.06	0.06
			2.00			1/2" Ice	2.01	1.20	0.08
			2.00			Ice	2.19	1.34	0.09
						1" Ice	2.57	1.66	0.14
						2" Ice			

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight	
			Horz	Vert						
			Lateral	ft	°	ft	ft ²	ft ²	K	
RRUS 4478 B14	C	From Centroid-Leg	4.00	2.00	30.0000	96.00	No Ice	1.84	1.06	0.06
							1/2" Ice	2.01	1.20	0.08
							Ice	2.19	1.34	0.09
							1" Ice	2.57	1.66	0.14
							2" Ice			
RRUS 4449 B5/B12	A	From Centroid-Leg	4.00	6.00	30.0000	96.00	No Ice	1.97	1.41	0.07
							1/2" Ice	2.14	1.56	0.09
							Ice	2.33	1.73	0.11
							1" Ice	2.72	2.07	0.16
							2" Ice			
RRUS 4449 B5/B12	B	From Centroid-Leg	4.00	6.00	30.0000	96.00	No Ice	1.97	1.41	0.07
							1/2" Ice	2.14	1.56	0.09
							Ice	2.33	1.73	0.11
							1" Ice	2.72	2.07	0.16
							2" Ice			
RRUS 4449 B5/B12	C	From Centroid-Leg	4.00	6.00	30.0000	96.00	No Ice	1.97	1.41	0.07
							1/2" Ice	2.14	1.56	0.09
							Ice	2.33	1.73	0.11
							1" Ice	2.72	2.07	0.16
							2" Ice			
4' x 2" Pipe Mount	A	From Centroid-Leg	4.00	-6.00	0.0000	96.00	No Ice	0.79	0.79	0.03
							1/2" Ice	1.03	1.03	0.04
							Ice	1.28	1.28	0.04
							1" Ice	1.81	1.81	0.07
							2" Ice			
4' x 2" Pipe Mount	B	From Centroid-Leg	4.00	-6.00	0.0000	96.00	No Ice	0.79	0.79	0.03
							1/2" Ice	1.03	1.03	0.04
							Ice	1.28	1.28	0.04
							1" Ice	1.81	1.81	0.07
							2" Ice			
4' x 2" Pipe Mount	C	From Centroid-Leg	4.00	-6.00	0.0000	96.00	No Ice	0.79	0.79	0.03
							1/2" Ice	1.03	1.03	0.04
							Ice	1.28	1.28	0.04
							1" Ice	1.81	1.81	0.07
							2" Ice			
(2) L 2-1/2x2-1/2x3/16 (40" Long)	A	From Centroid-Leg	2.00	0.00	0.0000	96.00	No Ice	0.83	0.05	0.01
							1/2" Ice	1.07	0.08	0.02
							Ice	1.32	0.12	0.03
							1" Ice	1.84	0.22	0.06
							2" Ice			
(2) L 2-1/2x2-1/2x3/16 (40" Long)	B	From Centroid-Leg	2.00	0.00	0.0000	96.00	No Ice	0.83	0.05	0.01
							1/2" Ice	1.07	0.08	0.02
							Ice	1.32	0.12	0.03
							1" Ice	1.84	0.22	0.06
							2" Ice			
(2) L 2-1/2x2-1/2x3/16 (40" Long)	C	From Centroid-Leg	2.00	0.00	0.0000	96.00	No Ice	0.83	0.05	0.01
							1/2" Ice	1.07	0.08	0.02
							Ice	1.32	0.12	0.03
							1" Ice	1.84	0.22	0.06
							2" Ice			
Platform Mount [LP 712-1]	C	None			0.0000	96.00	No Ice	24.56	24.56	1.34
							1/2" Ice	27.92	27.92	1.91
							Ice	31.27	31.27	2.55
							1" Ice	37.98	37.98	3.97
							2" Ice			
Miscellaneous [NA 507-1]	C	None			0.0000	96.00	No Ice	4.56	4.56	0.25
							1/2" Ice	6.39	6.39	0.31
							Ice	8.18	8.18	0.40
							1" Ice	11.66	11.66	0.66
							2" Ice			
75 ACUTIME 2000	A	From Leg	3.00	0.00	0.0000	75.00	No Ice	0.26	0.26	0.00
							1/2" Ice	0.32	0.32	0.00
							Ice	0.39	0.39	0.01
							1" Ice	0.56	0.56	0.02
							2" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
Side Arm Mount [SO 701-1]	A	From Leg	1.50 0.00 0.00	0.0000	75.00	2" Ice			
						No Ice	0.85	1.67	0.07
						1/2"	1.14	2.34	0.08
						Ice	1.43	3.01	0.09
						1" Ice	2.01	4.35	0.12
* TA08025-B604	A	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	0.00	0.98	0.06
						1/2"	2.14	1.11	0.08
						Ice	2.32	1.25	0.10
						1" Ice	2.71	1.55	0.15
TA08025-B605	A	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	0.00	1.13	0.08
						1/2"	2.14	1.27	0.09
						Ice	2.32	1.41	0.11
						1" Ice	2.71	1.72	0.16
RDIDC-9181-PF-48	A	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	2.31	1.29	0.02
						1/2"	2.50	1.45	0.04
						Ice	2.70	1.61	0.06
						1" Ice	3.12	1.96	0.12
TA08025-B604	B	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	0.00	0.98	0.06
						1/2"	2.14	1.11	0.08
						Ice	2.32	1.25	0.10
						1" Ice	2.71	1.55	0.15
TA08025-B605	B	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	0.00	1.13	0.08
						1/2"	2.14	1.27	0.09
						Ice	2.32	1.41	0.11
						1" Ice	2.71	1.72	0.16
TA08025-B604	C	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	0.00	0.98	0.06
						1/2"	2.14	1.11	0.08
						Ice	2.32	1.25	0.10
						1" Ice	2.71	1.55	0.15
TA08025-B605	C	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	0.00	1.13	0.08
						1/2"	2.14	1.27	0.09
						Ice	2.32	1.41	0.11
						1" Ice	2.71	1.72	0.16
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	8.01	4.23	0.11
						1/2"	8.52	4.69	0.19
						Ice	9.04	5.16	0.29
						1" Ice	10.11	6.12	0.52
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	8.01	4.23	0.11
						1/2"	8.52	4.69	0.19
						Ice	9.04	5.16	0.29
						1" Ice	10.11	6.12	0.52
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	8.01	4.23	0.11
						1/2"	8.52	4.69	0.19
						Ice	9.04	5.16	0.29
						1" Ice	10.11	6.12	0.52
(2) 8' x 2" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	1.90	1.90	0.03
						1/2"	2.73	2.73	0.04
						Ice	3.40	3.40	0.06
						1" Ice	4.40	4.40	0.12
(2) 8' x 2" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	86.00	2" Ice			
						No Ice	1.90	1.90	0.03
						1/2"	2.73	2.73	0.04
						Ice	3.40	3.40	0.06
						1" Ice	4.40	4.40	0.12

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} _{Front} ft ²	C _{AA} _{Side} ft ²	Weight K	
(2) 8' x 2" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	86.00	1" Ice	4.40	4.40	0.12
						2" Ice			
						No Ice	1.90	1.90	0.03
						1/2" Ice	2.73	2.73	0.04
						Ice	3.40	3.40	0.06
Commscope MC-PK8-DSH	C	None		0.0000	86.00	1" Ice	4.40	4.40	0.12
						2" Ice			
						No Ice	34.24	34.24	1.75
						1/2" Ice	62.95	62.95	2.10
						Ice	91.66	91.66	2.45
						1" Ice	149.08	149.08	3.15
						2" Ice			

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft ²	Weight K

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp

Comb. No.	Description
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	120 - 115	Pole	Max Tension	26	0.00	0.00	-0.00
			Max. Compression	26	-10.33	1.40	1.49
			Max. Mx	20	-4.75	32.19	0.62
			Max. My	2	-4.78	0.50	30.50
			Max. Vy	8	5.26	-31.16	0.51
			Max. Vx	2	-4.98	0.50	30.50
			Max. Torque	16			-1.58
L2	115 - 110	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-20.90	-1.48	3.02
			Max. Mx	8	-8.76	-81.11	1.19
			Max. My	2	-8.84	-0.85	76.37
			Max. Vy	8	11.51	-81.11	1.19
			Max. Vx	2	-10.74	-0.85	76.37
			Max. Torque	8			1.61
L3	110 - 105	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-21.91	-1.34	2.90
			Max. Mx	8	-9.25	-139.93	1.42
			Max. My	2	-9.32	-1.06	131.34
			Max. Vy	8	12.04	-139.93	1.42
			Max. Vx	2	-11.26	-1.06	131.34
			Max. Torque	8			1.61
L4	105 - 100	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.81	-1.30	2.82
			Max. Mx	8	-14.79	-232.17	1.67
			Max. My	2	-14.88	-1.30	219.67
			Max. Vy	8	17.38	-232.17	1.67
			Max. Vx	2	-16.60	-1.30	219.67
			Max. Torque	8			1.61
L5	100 - 99.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.01	-1.30	2.80
			Max. Mx	8	-14.88	-245.23	1.71
			Max. My	2	-14.96	-1.33	232.15
			Max. Vy	8	17.46	-245.23	1.71
			Max. Vx	2	-16.68	-1.33	232.15
			Max. Torque	8			1.61
L6	99.25 - 99	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.09	-1.30	2.79
			Max. Mx	8	-14.93	-249.60	1.72
			Max. My	2	-15.01	-1.35	236.32
			Max. Vy	8	17.48	-249.60	1.72

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L7	99 - 94	Pole	Max. Vx	2	-16.70	-1.35	236.32
			Max. Torque	8			1.61
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.37	-1.50	2.81
			Max. Mx	8	-20.99	-362.52	2.05
			Max. My	2	-21.08	-1.65	345.28
			Max. Vy	8	25.20	-362.52	2.05
			Max. Vx	2	-24.40	-1.65	345.28
L8	94 - 90.08	Pole	Max. Torque	8			1.69
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-48.78	-1.46	2.70
			Max. Mx	8	-21.79	-462.08	2.27
			Max. My	2	-21.87	-1.87	441.72
			Max. Vy	8	25.62	-462.08	2.27
			Max. Vx	2	-24.82	-1.87	441.72
			Max. Torque	8			1.64
L9	90.08 - 89.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-48.88	-1.46	2.70
			Max. Mx	8	-21.86	-468.49	2.28
			Max. My	2	-21.94	-1.88	447.93
			Max. Vy	8	25.64	-468.49	2.28
			Max. Vx	2	-24.84	-1.88	447.93
			Max. Torque	8			1.64
			Max Tension	1	0.00	0.00	0.00
L10	89.83 - 89.5	Pole	Max. Compression	26	-49.02	-1.45	2.69
			Max. Mx	8	-21.93	-476.96	2.30
			Max. My	2	-22.02	-1.90	456.13
			Max. Vy	8	25.68	-476.96	2.30
			Max. Vx	2	-24.88	-1.90	456.13
			Max. Torque	8			1.64
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.13	-1.45	2.68
L11	89.5 - 89.25	Pole	Max. Mx	8	-22.01	-483.38	2.32
			Max. My	2	-22.09	-1.92	462.36
			Max. Vy	8	25.71	-483.38	2.32
			Max. Vx	2	-24.91	-1.92	462.36
			Max. Torque	8			1.64
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-57.26	-1.37	2.99
			Max. Mx	8	-26.50	-618.89	2.72
L12	89.25 - 84.25	Pole	Max. My	2	-26.59	-2.19	594.06
			Max. Vy	8	29.45	-618.89	2.72
			Max. Vx	2	-28.69	-2.19	594.06
			Max. Torque	8			1.90
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-58.48	-1.34	2.93
			Max. Mx	8	-27.24	-692.88	2.86
			Max. My	2	-27.33	-2.34	666.14
L13	84.25 - 78	Pole	Max. Vy	8	29.75	-692.88	2.86
			Max. Vx	2	-28.98	-2.34	666.14
			Max. Torque	8			1.90
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.36	-1.30	2.83
			Max. Mx	8	-29.96	-835.74	3.14
			Max. My	2	-30.04	-2.61	805.36
			Max. Vy	8	30.40	-835.74	3.14
L14	78 - 77	Pole	Max. Vx	2	-29.64	-2.61	805.36
			Max. Torque	8			1.90
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.51	-1.30	2.83
			Max. Mx	8	-30.06	-843.34	3.16
			Max. My	2	-30.14	-2.63	812.77
			Max. Vy	8	30.43	-843.34	3.16
			Max. Vx	2	-29.66	-2.63	812.77
L15	77 - 76.75	Pole	Max. Torque	8			1.90
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.67	-1.30	2.83
			Max. Mx	8	-30.06	-843.34	3.16
L16	76.75 - 76.5	Pole	Max. My	2	-30.14	-2.63	812.77
			Max. Vy	8	30.43	-843.34	3.16
			Max. Vx	2	-29.66	-2.63	812.77
			Max. Torque	8			1.90
L16	76.75 - 76.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.67	-1.30	2.83
			Max. Mx	8	-30.06	-843.34	3.16

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L17	76.5 - 75.5	Pole	Max. Mx	8	-30.16	-850.95	3.17
			Max. My	2	-30.25	-2.64	820.19
			Max. Vy	8	30.46	-850.95	3.17
			Max. Vx	2	-29.69	-2.64	820.19
			Max. Torque	8			1.90
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.29	-1.29	2.82
			Max. Mx	8	-30.56	-881.47	3.23
			Max. My	2	-30.65	-2.70	849.94
			Max. Vy	8	30.59	-881.47	3.23
L18	75.5 - 75.25	Pole	Max. Vx	2	-29.82	-2.70	849.94
			Max. Torque	8			1.90
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.44	-1.29	2.82
			Max. Mx	8	-30.66	-889.12	3.24
			Max. My	2	-30.75	-2.71	857.40
			Max. Vy	8	30.61	-889.12	3.24
			Max. Vx	2	-29.85	-2.71	857.40
			Max. Torque	8			1.90
			Max Tension	1	0.00	0.00	0.00
L19	75.25 - 74.5	Pole	Max. Compression	26	-64.01	-1.29	3.20
			Max. Mx	8	-31.01	-912.17	3.50
			Max. My	2	-31.10	-2.75	880.07
			Max. Vy	8	30.80	-912.17	3.50
			Max. Vx	2	-29.99	-2.75	880.07
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-64.16	-1.29	3.20
			Max. Mx	8	-31.10	-919.87	3.51
			Max. My	2	-31.19	-2.77	887.57
L20	74.5 - 74.25	Pole	Max. Vy	8	30.83	-919.87	3.51
			Max. Vx	2	-30.02	-2.77	887.57
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-65.41	-1.29	3.17
			Max. Mx	8	-31.89	-989.52	3.64
			Max. My	2	-31.97	-2.90	955.41
			Max. Vy	8	31.10	-989.52	3.64
			Max. Vx	2	-30.29	-2.90	955.41
			Max. Torque	8			2.17
L21	74.25 - 72	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-65.57	-1.28	3.17
			Max. Mx	8	-31.99	-997.30	3.66
			Max. My	2	-32.08	-2.91	962.98
			Max. Vy	8	31.13	-997.30	3.66
			Max. Vx	2	-30.32	-2.91	962.98
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-66.38	-1.26	3.18
			Max. Mx	8	-32.47	-1036.31	3.73
L22	72 - 71.75	Pole	Max. My	2	-32.55	-2.99	1000.98
			Max. Vy	8	31.30	-1036.31	3.73
			Max. Vx	2	-30.49	-2.99	1000.98
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-66.55	-1.26	3.18
			Max. Mx	8	-32.58	-1044.14	3.74
			Max. My	2	-32.66	-3.00	1008.60
			Max. Vy	8	31.33	-1044.14	3.74
			Max. Vx	2	-30.51	-3.00	1008.60
L23	71.75 - 70.5	Pole	Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-66.72	-1.25	3.18
			Max. Mx	8	-32.68	-1051.97	3.76
			Max. My	2	-32.76	-3.01	1016.24
			Max. Vy	8	31.36	-1051.97	3.76
			Max. Vx	2	-30.55	-3.01	1016.24
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-66.72	-1.25	3.18
L24	70.5 - 70.25	Pole	Max. Mx	8	-32.68	-1051.97	3.76
			Max. My	2	-32.76	-3.01	1016.24
			Max. Vy	8	31.36	-1051.97	3.76
			Max. Vx	2	-30.55	-3.01	1016.24
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-66.72	-1.25	3.18
			Max. Mx	8	-32.68	-1051.97	3.76
			Max. My	2	-32.76	-3.01	1016.24
			Max. Vy	8	31.36	-1051.97	3.76
L25	70.25 - 70	Pole	Max. Vx	2	-30.55	-3.01	1016.24
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-66.72	-1.25	3.18
			Max. Mx	8	-32.68	-1051.97	3.76
			Max. My	2	-32.76	-3.01	1016.24
			Max. Vy	8	31.36	-1051.97	3.76
			Max. Vx	2	-30.55	-3.01	1016.24
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
L26	70 - 69.75	Pole	Max. Compression	26	-66.72	-1.25	3.18
			Max. Torque	8			2.17

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L27	69.75 - 69.5	Pole	Max. Compression	26	-66.88	-1.25	3.18
			Max. Mx	8	-32.78	-1059.82	3.77
			Max. My	2	-32.86	-3.03	1023.88
			Max. Vy	8	31.40	-1059.82	3.77
			Max. Vx	2	-30.58	-3.03	1023.88
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.05	-1.24	3.19
			Max. Mx	8	-32.88	-1067.67	3.79
			Max. My	2	-32.96	-3.04	1031.52
L28	69.5 - 69.25	Pole	Max. Vy	8	31.43	-1067.67	3.79
			Max. Vx	2	-30.61	-3.04	1031.52
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.20	-1.24	3.19
			Max. Mx	8	-32.97	-1075.53	3.80
			Max. My	2	-33.05	-3.06	1039.18
			Max. Vy	8	31.46	-1075.53	3.80
			Max. Vx	2	-30.64	-3.06	1039.18
			Max. Torque	8			2.17
L29	69.25 - 64.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-70.05	-1.16	3.10
			Max. Mx	8	-34.77	-1234.34	4.09
			Max. My	2	-34.85	-3.35	1193.83
			Max. Vy	18	-32.30	1188.70	-666.13
			Max. Vx	2	-31.23	-3.35	1193.83
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-72.81	-1.11	2.99
			Max. Mx	8	-36.61	-1396.08	4.38
L30	64.25 - 59.25	Pole	Max. My	2	-36.69	-3.63	1351.36
			Max. Vy	18	-33.22	1352.44	-758.80
			Max. Vx	2	-31.80	-3.63	1351.36
			Max. Torque	8			2.17
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.67	-1.08	2.92
			Max. Mx	8	-37.83	-1502.77	4.57
			Max. My	2	-37.90	-3.82	1455.28
			Max. Vy	18	-33.81	1461.31	-820.46
			Max. Vx	2	-32.17	-3.82	1455.28
L31	59.25 - 56	Pole	Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.86	-1.08	2.91
			Max. Mx	8	-37.96	-1511.03	4.58
			Max. My	2	-38.03	-3.83	1463.32
			Max. Vy	18	-33.85	1469.77	-825.25
			Max. Vx	2	-32.19	-3.83	1463.32
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.04	-1.08	2.90
L32	56 - 55.75	Pole	Max. Mx	8	-38.08	-1519.30	4.60
			Max. My	2	-38.15	-3.85	1471.37
			Max. Vy	18	-33.90	1478.23	-830.04
			Max. Vx	2	-32.22	-3.85	1471.37
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.23	-1.08	2.90
			Max. Mx	8	-38.20	-1527.57	4.61
			Max. My	2	-38.27	-3.86	1479.43
			Max. Vy	18	-33.95	1486.71	-834.85
L33	55.75 - 55.5	Pole	Max. Vx	2	-32.25	-3.86	1479.43
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-76.19	-1.07	2.87
			Max. Mx	8	-38.81	-1569.07	4.69
			Max. My	2	-38.88	-3.94	1519.84
			Max. Vy	18	-34.20	1529.29	-858.96
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-76.19	-1.07	2.87

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L36	54 - 53.75	Pole	Max. Vx	2	-32.42	-3.94	1519.84
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-76.37	-1.07	2.87
			Max. Mx	8	-38.94	-1577.40	4.70
			Max. My	2	-39.01	-3.96	1527.95
			Max. Vy	18	-34.24	1537.84	-863.81
			Max. Vx	2	-32.44	-3.96	1527.95
L37	53.75 - 53.5	Pole	Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-76.55	-1.07	2.86
			Max. Mx	8	-39.05	-1585.73	4.72
			Max. My	2	-39.12	-3.97	1536.06
			Max. Vy	18	-34.28	1546.40	-868.66
			Max. Vx	2	-32.46	-3.97	1536.06
			Max. Torque	8			2.16
L38	53.5 - 53.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-76.73	-1.07	2.86
			Max. Mx	8	-39.17	-1594.07	4.73
			Max. My	2	-39.23	-3.99	1544.18
			Max. Vy	18	-34.33	1554.97	-873.52
			Max. Vx	2	-32.49	-3.99	1544.18
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
L39	53.25 - 53	Pole	Max. Compression	26	-76.90	-1.07	2.85
			Max. Mx	8	-39.27	-1602.42	4.75
			Max. My	2	-39.34	-4.00	1552.31
			Max. Vy	18	-34.37	1563.56	-878.38
			Max. Vx	2	-32.52	-4.00	1552.31
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-80.14	-1.05	2.73
L40	53 - 48	Pole	Max. Mx	8	-41.36	-1770.88	5.04
			Max. My	2	-41.43	-4.30	1716.23
			Max. Vy	18	-35.24	1737.51	-976.97
			Max. Vx	2	-33.07	-4.30	1716.23
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-82.43	-1.03	2.66
			Max. Mx	8	-42.85	-1890.45	5.24
L41	48 - 39.75	Pole	Max. My	2	-42.91	-4.51	1832.55
			Max. Vy	18	-35.84	1861.81	-1047.46
			Max. Vx	2	-33.43	-4.51	1832.55
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-87.96	-0.99	2.56
			Max. Mx	8	-46.74	-2090.17	5.58
			Max. My	2	-46.79	-4.86	2026.83
L42	39.75 - 38.75	Pole	Max. Vy	18	-36.94	2070.99	-1166.12
			Max. Vx	2	-34.15	-4.86	2026.83
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-90.63	-0.95	2.49
			Max. Mx	8	-48.48	-2231.36	5.81
			Max. My	2	-48.53	-5.10	2164.16
			Max. Vy	18	-37.60	2219.98	-1250.68
L43	38.75 - 34.75	Pole	Max. Vx	2	-34.55	-5.10	2164.16
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-90.82	-0.95	2.49
			Max. Mx	8	-48.62	-2240.24	5.82
			Max. My	2	-48.67	-5.11	2172.79
			Max. Vy	18	-37.63	2229.38	-1256.02
			Max. Vx	2	-34.56	-5.11	2172.79
L44	34.75 - 34.5	Pole	Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-91.40	-0.94	2.47
			Max. Mx	8	-48.62	-2240.24	5.82
L45	34.5 - 33.75	Pole	Max. My	2	-48.67	-5.11	2172.79
			Max. Vy	18	-37.63	2229.38	-1256.02
			Max. Vx	2	-34.56	-5.11	2172.79
			Max. Torque	8			2.16
L45	34.5 - 33.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-91.40	-0.94	2.47
			Max. Mx	8	-48.62	-2240.24	5.82

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L46	33.75 - 33.5	Pole	Max. Mx	8	-49.00	-2266.93	5.87
			Max. My	2	-49.05	-5.16	2198.74
			Max. Vy	18	-37.76	2257.64	-1272.06
			Max. Vx	2	-34.65	-5.16	2198.74
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-91.57	-0.93	2.47
			Max. Mx	8	-49.12	-2275.84	5.88
			Max. My	2	-49.17	-5.17	2207.40
			Max. Vy	18	-37.80	2267.08	-1277.42
L47	33.5 - 28.5	Pole	Max. Vx	2	-34.66	-5.17	2207.40
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-94.89	-0.88	2.39
			Max. Mx	6	-51.02	-2459.81	1389.07
			Max. My	2	-51.37	-5.47	2381.84
			Max. Vy	18	-38.59	2457.94	-1385.81
			Max. Vx	2	-35.14	-5.47	2381.84
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
L48	28.5 - 24	Pole	Max. Compression	26	-97.83	-0.85	2.31
			Max. Mx	6	-53.08	-2634.92	1488.54
			Max. My	2	-53.38	-5.74	2540.79
			Max. Vy	18	-39.27	2633.00	-1485.25
			Max. Vx	2	-35.54	-5.74	2540.79
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-98.00	-0.85	2.31
			Max. Mx	6	-53.22	-2644.73	1494.12
			Max. My	2	-53.51	-5.75	2549.67
L49	24 - 23.75	Pole	Max. Vy	18	-39.29	2642.81	-1490.83
			Max. Vx	2	-35.55	-5.75	2549.67
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-101.37	-0.81	2.23
			Max. Mx	6	-55.62	-2843.00	1606.79
			Max. My	2	-55.86	-6.05	2728.49
			Max. Vy	6	40.03	-2843.00	1606.79
			Max. Vx	2	-36.00	-6.05	2728.49
			Max. Torque	8			2.16
L50	23.75 - 18.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-104.45	-0.77	2.16
			Max. Mx	6	-57.82	-3024.45	1709.94
			Max. My	2	-58.01	-6.31	2891.21
			Max. Vy	6	40.65	-3024.45	1709.94
			Max. Vx	2	-36.36	-6.31	2891.21
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-104.63	-0.77	2.15
			Max. Mx	6	-57.97	-3034.61	1715.72
L51	18.75 - 14.25	Pole	Max. My	2	-58.15	-6.33	2900.30
			Max. Vy	6	40.66	-3034.61	1715.72
			Max. Vx	2	-36.36	-6.33	2900.30
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-108.37	-0.70	2.07
			Max. Mx	6	-60.65	-3239.62	1832.31
			Max. My	2	-60.78	-6.62	3083.13
			Max. Vy	6	41.36	-3239.62	1832.31
			Max. Vx	2	-36.79	-6.62	3083.13
L52	14.25 - 14	Pole	Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-111.21	-0.67	1.84
			Max. Mx	6	-62.76	-3406.10	1926.91
			Max. My	2	-62.83	-6.87	3230.78
			Max. Vy	6	41.91	-3406.10	1926.91
			Max. Vx	2	-37.12	-6.87	3230.78
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-111.21	-0.67	1.84
L53	9 - 5	Pole	Max. Mx	6	-62.76	-3406.10	1926.91
			Max. My	2	-62.83	-6.87	3230.78
			Max. Vy	6	41.91	-3406.10	1926.91
			Max. Vx	2	-37.12	-6.87	3230.78
			Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-111.21	-0.67	1.84
			Max. Mx	6	-62.76	-3406.10	1926.91
			Max. My	2	-62.83	-6.87	3230.78
			Max. Vy	6	41.91	-3406.10	1926.91
Max. Vx	2	-37.12	-6.87	3230.78			

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L55	5 - 4.75	Pole	Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-111.40	-0.67	1.82
			Max. Mx	6	-62.92	-3416.58	1932.86
			Max. My	2	-62.98	-6.88	3240.05
			Max. Vy	6	41.92	-3416.58	1932.86
			Max. Vx	2	-37.12	-6.88	3240.05
L56	4.75 - 4.5	Pole	Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-111.58	-0.67	1.80
			Max. Mx	6	-63.06	-3427.07	1938.82
			Max. My	2	-63.12	-6.90	3249.32
			Max. Vy	6	41.96	-3427.07	1938.82
			Max. Vx	2	-37.15	-6.90	3249.32
L57	4.5 - 0	Pole	Max. Torque	8			2.16
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-114.71	-0.67	1.50
			Max. Mx	6	-65.55	-3617.31	2046.90
			Max. My	2	-65.56	-7.19	3417.16
			Max. Vy	6	42.60	-3617.31	2046.90
			Max. Vx	2	-37.54	-7.19	3417.16
			Max. Torque	8			2.16

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	29	114.71	-9.71	5.54
	Max. H _x	19	49.18	42.58	-24.23
	Max. H _z	2	65.57	-0.05	37.52
	Max. M _x	2	3417.16	-0.05	37.52
	Max. M _z	6	3617.31	-42.58	24.23
	Max. Torsion	8	2.16	-38.69	0.05
	Min. Vert	5	49.18	-19.54	33.13
	Min. H _x	6	65.57	-42.58	24.23
	Min. H _z	14	65.57	0.05	-37.52
	Min. M _x	14	-3414.30	0.05	-37.52
	Min. M _z	18	-3615.05	42.58	-24.23
	Min. Torsion	20	-2.16	38.69	-0.05

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturing Moment, M _x kip-ft	Overturing Moment, M _z kip-ft	Torque kip-ft
Dead Only	54.64	0.00	0.00	-1.11	-0.89	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	65.57	0.05	-37.52	-3417.16	-7.19	0.38
0.9 Dead+1.0 Wind 0 deg - No Ice	49.18	0.05	-37.52	-3384.24	-6.83	0.36
1.2 Dead+1.0 Wind 30 deg - No Ice	65.57	19.54	-33.13	-2985.64	-1773.40	-0.75
0.9 Dead+1.0 Wind 30 deg - No Ice	49.18	19.54	-33.13	-2956.95	-1756.23	-0.75
1.2 Dead+1.0 Wind 60 deg - No Ice	65.57	42.58	-24.23	-2046.90	-3617.31	-2.01
0.9 Dead+1.0 Wind 60 deg - No Ice	49.18	42.58	-24.23	-2027.63	-3583.50	-2.00
1.2 Dead+1.0 Wind 90 deg - No Ice	65.57	38.69	-0.05	-7.48	-3520.74	-2.16

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
0.9 Dead+1.0 Wind 90 deg - No Ice	49.18	38.69	-0.05	-7.04	-3486.86	-2.14
1.2 Dead+1.0 Wind 120 deg - No Ice	65.57	34.19	19.33	1738.24	-3099.75	-2.06
0.9 Dead+1.0 Wind 120 deg - No Ice	49.18	34.19	19.33	1722.14	-3069.99	-2.04
1.2 Dead+1.0 Wind 150 deg - No Ice	65.57	19.98	34.01	3010.83	-1782.58	-1.47
0.9 Dead+1.0 Wind 150 deg - No Ice	49.18	19.98	34.01	2982.77	-1765.42	-1.44
1.2 Dead+1.0 Wind 180 deg - No Ice	65.57	-0.05	37.52	3414.30	4.93	-0.38
0.9 Dead+1.0 Wind 180 deg - No Ice	49.18	-0.05	37.52	3382.14	5.16	-0.36
1.2 Dead+1.0 Wind 210 deg - No Ice	65.57	-19.54	33.13	2982.79	1771.14	0.76
0.9 Dead+1.0 Wind 210 deg - No Ice	49.18	-19.54	33.13	2954.85	1754.55	0.76
1.2 Dead+1.0 Wind 240 deg - No Ice	65.57	-42.58	24.23	2044.06	3615.05	2.02
0.9 Dead+1.0 Wind 240 deg - No Ice	49.18	-42.58	24.23	2025.55	3581.83	2.01
1.2 Dead+1.0 Wind 270 deg - No Ice	65.57	-38.69	0.05	4.64	3518.48	2.16
0.9 Dead+1.0 Wind 270 deg - No Ice	49.18	-38.69	0.05	4.95	3485.19	2.14
1.2 Dead+1.0 Wind 300 deg - No Ice	65.57	-34.19	-19.33	-1741.08	3097.50	2.06
0.9 Dead+1.0 Wind 300 deg - No Ice	49.18	-34.19	-19.33	-1724.23	3068.33	2.03
1.2 Dead+1.0 Wind 330 deg - No Ice	65.57	-19.98	-34.01	-3013.68	1780.33	1.46
0.9 Dead+1.0 Wind 330 deg - No Ice	49.18	-19.98	-34.01	-2984.87	1763.75	1.44
1.2 Dead+1.0 Ice+1.0 Temp	114.71	0.00	-0.00	-1.50	-0.67	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	114.71	0.01	-8.97	-857.40	-2.17	0.13
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	114.71	4.57	-7.78	-743.47	-438.57	-0.06
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	114.71	9.71	-5.54	-499.15	-876.07	-0.19
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	114.71	9.11	-0.01	-3.14	-873.94	-0.35
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	114.71	7.89	4.48	424.89	-756.25	-0.37
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	114.71	4.60	7.86	743.83	-439.14	-0.31
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	114.71	-0.01	8.97	853.95	0.65	-0.13
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	114.71	-4.57	7.78	740.01	437.05	0.06
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	114.71	-9.71	5.54	495.69	874.54	0.19
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	114.71	-9.11	0.01	-0.32	872.42	0.35
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	114.71	-7.89	-4.48	-428.34	754.73	0.37
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	114.71	-4.60	-7.86	-747.28	437.63	0.31
Dead+Wind 0 deg - Service	54.64	0.01	-8.15	-738.78	-2.24	0.08
Dead+Wind 30 deg - Service	54.64	4.24	-7.19	-645.62	-383.64	-0.16
Dead+Wind 60 deg - Service	54.64	9.24	-5.26	-443.00	-782.00	-0.44
Dead+Wind 90 deg - Service	54.64	8.40	-0.01	-2.48	-760.98	-0.47
Dead+Wind 120 deg - Service	54.64	7.42	4.20	374.51	-670.07	-0.45
Dead+Wind 150 deg - Service	54.64	4.34	7.39	649.33	-385.63	-0.32
Dead+Wind 180 deg - Service	54.64	-0.01	8.15	736.42	0.37	-0.08

Load Combination	Vertical	Shear _x	Shear _z	Overturning Moment, M _x	Overturning Moment, M _z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 210 deg - Service	54.64	-4.24	7.19	643.26	381.77	0.16
Dead+Wind 240 deg - Service	54.64	-9.24	5.26	440.65	780.14	0.44
Dead+Wind 270 deg - Service	54.64	-8.40	0.01	0.13	759.11	0.47
Dead+Wind 300 deg - Service	54.64	-7.42	-4.20	-376.87	668.21	0.45
Dead+Wind 330 deg - Service	54.64	-4.34	-7.39	-651.69	383.77	0.32

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-54.64	0.00	0.00	54.64	0.00	0.000%
2	0.05	-65.57	-37.52	-0.05	65.57	37.52	0.000%
3	0.05	-49.18	-37.52	-0.05	49.18	37.52	0.000%
4	19.54	-65.57	-33.13	-19.54	65.57	33.13	0.000%
5	19.54	-49.18	-33.13	-19.54	49.18	33.13	0.000%
6	42.58	-65.57	-24.23	-42.58	65.57	24.23	0.000%
7	42.58	-49.18	-24.23	-42.58	49.18	24.23	0.000%
8	38.69	-65.57	-0.05	-38.69	65.57	0.05	0.000%
9	38.69	-49.18	-0.05	-38.69	49.18	0.05	0.000%
10	34.19	-65.57	19.33	-34.19	65.57	-19.33	0.000%
11	34.19	-49.18	19.33	-34.19	49.18	-19.33	0.000%
12	19.98	-65.57	34.01	-19.98	65.57	-34.01	0.000%
13	19.98	-49.18	34.01	-19.98	49.18	-34.01	0.000%
14	-0.05	-65.57	37.52	0.05	65.57	-37.52	0.000%
15	-0.05	-49.18	37.52	0.05	49.18	-37.52	0.000%
16	-19.54	-65.57	33.13	19.54	65.57	-33.13	0.000%
17	-19.54	-49.18	33.13	19.54	49.18	-33.13	0.000%
18	-42.58	-65.57	24.23	42.58	65.57	-24.23	0.000%
19	-42.58	-49.18	24.23	42.58	49.18	-24.23	0.000%
20	-38.69	-65.57	0.05	38.69	65.57	-0.05	0.000%
21	-38.69	-49.18	0.05	38.69	49.18	-0.05	0.000%
22	-34.19	-65.57	-19.33	34.19	65.57	19.33	0.000%
23	-34.19	-49.18	-19.33	34.19	49.18	19.33	0.000%
24	-19.98	-65.57	-34.01	19.98	65.57	34.01	0.000%
25	-19.98	-49.18	-34.01	19.98	49.18	34.01	0.000%
26	0.00	-114.71	0.00	-0.00	114.71	0.00	0.000%
27	0.01	-114.71	-8.97	-0.01	114.71	8.97	0.000%
28	4.57	-114.71	-7.78	-4.57	114.71	7.78	0.000%
29	9.71	-114.71	-5.54	-9.71	114.71	5.54	0.000%
30	9.11	-114.71	-0.01	-9.11	114.71	0.01	0.000%
31	7.89	-114.71	4.48	-7.89	114.71	-4.48	0.000%
32	4.60	-114.71	7.86	-4.60	114.71	-7.86	0.000%
33	-0.01	-114.71	8.97	0.01	114.71	-8.97	0.000%
34	-4.57	-114.71	7.78	4.57	114.71	-7.78	0.000%
35	-9.71	-114.71	5.54	9.71	114.71	-5.54	0.000%
36	-9.11	-114.71	0.01	9.11	114.71	-0.01	0.000%
37	-7.89	-114.71	-4.48	7.89	114.71	4.48	0.000%
38	-4.60	-114.71	-7.86	4.60	114.71	7.86	0.000%
39	0.01	-54.64	-8.15	-0.01	54.64	8.15	0.000%
40	4.24	-54.64	-7.19	-4.24	54.64	7.19	0.000%
41	9.24	-54.64	-5.26	-9.24	54.64	5.26	0.000%
42	8.40	-54.64	-0.01	-8.40	54.64	0.01	0.000%
43	7.42	-54.64	4.20	-7.42	54.64	-4.20	0.000%
44	4.34	-54.64	7.39	-4.34	54.64	-7.39	0.000%
45	-0.01	-54.64	8.15	0.01	54.64	-8.15	0.000%
46	-4.24	-54.64	7.19	4.24	54.64	-7.19	0.000%
47	-9.24	-54.64	5.26	9.24	54.64	-5.26	0.000%
48	-8.40	-54.64	0.01	8.40	54.64	-0.01	0.000%
49	-7.42	-54.64	-4.20	7.42	54.64	4.20	0.000%
50	-4.34	-54.64	-7.39	4.34	54.64	7.39	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	5	0.00000001	0.00025169
3	Yes	5	0.00000001	0.00010598
4	Yes	6	0.00000001	0.00044288
5	Yes	6	0.00000001	0.00015241
6	Yes	6	0.00000001	0.00061152
7	Yes	6	0.00000001	0.00020128
8	Yes	5	0.00000001	0.00081043
9	Yes	5	0.00000001	0.00038549
10	Yes	6	0.00000001	0.00044235
11	Yes	6	0.00000001	0.00015145
12	Yes	6	0.00000001	0.00045856
13	Yes	6	0.00000001	0.00015816
14	Yes	5	0.00000001	0.00019875
15	Yes	5	0.00000001	0.00007694
16	Yes	6	0.00000001	0.00045170
17	Yes	6	0.00000001	0.00015599
18	Yes	6	0.00000001	0.00057925
19	Yes	6	0.00000001	0.00019010
20	Yes	5	0.00000001	0.00072034
21	Yes	5	0.00000001	0.00034216
22	Yes	6	0.00000001	0.00047718
23	Yes	6	0.00000001	0.00016408
24	Yes	6	0.00000001	0.00043762
25	Yes	6	0.00000001	0.00015043
26	Yes	4	0.00000001	0.00023150
27	Yes	6	0.00000001	0.00050129
28	Yes	6	0.00000001	0.00057357
29	Yes	6	0.00000001	0.00067065
30	Yes	6	0.00000001	0.00051090
31	Yes	6	0.00000001	0.00056891
32	Yes	6	0.00000001	0.00056716
33	Yes	6	0.00000001	0.00049407
34	Yes	6	0.00000001	0.00056384
35	Yes	6	0.00000001	0.00065903
36	Yes	6	0.00000001	0.00050793
37	Yes	6	0.00000001	0.00057433
38	Yes	6	0.00000001	0.00057048
39	Yes	4	0.00000001	0.00080192
40	Yes	5	0.00000001	0.00012186
41	Yes	5	0.00000001	0.00019443
42	Yes	5	0.00000001	0.00004587
43	Yes	5	0.00000001	0.00011797
44	Yes	5	0.00000001	0.00013389
45	Yes	4	0.00000001	0.00079200
46	Yes	5	0.00000001	0.00012761
47	Yes	5	0.00000001	0.00016608
48	Yes	5	0.00000001	0.00004505
49	Yes	5	0.00000001	0.00014428
50	Yes	5	0.00000001	0.00011846

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L1	120 - 115 (1)	TP23.0102x22x0.25	5.00	0.00	0.0	18.3220	-4.69	989.39	0.005
L2	115 - 110 (2)	TP24.0205x23.0102x0.25	5.00	0.00	0.0	19.1352	-8.62	1033.30	0.008
L3	110 - 105 (3)	TP25.0307x24.0205x0.25	5.00	0.00	0.0	19.9485	-9.08	1077.22	0.008
L4	105 - 100 (4)	TP26.041x25.0307x0.25	5.00	0.00	0.0	20.7617	-14.55	1121.13	0.013
L5	100 - 99.25 (5)	TP26.1925x26.041x0.25	0.75	0.00	0.0	20.8837	-14.64	1127.72	0.013
L6	99.25 - 99 (6)	TP26.243x26.1925x0.3625	0.25	0.00	0.0	30.2090	-14.69	1631.29	0.009
L7	99 - 94 (7)	TP27.2532x26.243x0.3563	5.00	0.00	0.0	30.8542	-20.66	1666.13	0.012
L8	94 - 90.08 (8)	TP28.0453x27.2532x0.356	3.92	0.00	0.0	31.2126	-21.44	1685.48	0.013
L9	90.08 - 89.83 (9)	TP28.0958x28.0453x0.5125	0.25	0.00	0.0	45.5193	-21.51	2458.04	0.009
L10	89.83 - 89.5 (10)	TP28.1625x28.0958x0.5125	0.33	0.00	0.0	45.6293	-21.59	2463.98	0.009
L11	89.5 - 89.25 (11)	TP28.213x28.1625x0.725	0.25	0.00	0.0	64.1707	-21.66	3465.22	0.006
L12	89.25 - 84.25 (12)	TP29.2232x28.213x0.7	5.00	0.00	0.0	64.2913	-26.10	3471.73	0.008
L13	84.25 - 78 (13)	TP30.486x29.2232x0.7	6.25	0.00	0.0	65.4298	-26.83	3533.21	0.008
L14	78 - 77 (14)	TP30.188x29.2283x0.8625	4.75	0.00	0.0	81.4443	-29.52	4397.99	0.007
L15	77 - 76.75 (15)	TP30.2385x30.188x0.8625	0.25	0.00	0.0	81.5846	-29.62	4405.57	0.007
L16	76.75 - 76.5 (16)	TP30.289x30.2385x0.9625	0.25	0.00	0.0	90.8903	-29.73	4908.07	0.006
L17	76.5 - 75.5 (17)	TP30.4911x30.289x0.9625	1.00	0.00	0.0	91.5164	-30.12	4941.89	0.006
L18	75.5 - 75.25 (18)	TP30.5416x30.4911x0.7625	0.25	0.00	0.0	73.1151	-30.22	3948.21	0.008
L19	75.25 - 74.5 (19)	TP30.6931x30.5416x0.7625	0.75	0.00	0.0	73.4871	-30.57	3968.31	0.008
L20	74.5 - 74.25 (20)	TP30.7436x30.6931x0.8375	0.25	0.00	0.0	80.6493	-30.66	4355.06	0.007
L21	74.25 - 72 (21)	TP31.1982x30.7436x0.825	2.25	0.00	0.0	80.6864	-31.44	4357.07	0.007
L22	72 - 71.75 (22)	TP31.2487x31.1982x0.7625	0.25	0.00	0.0	74.8513	-31.54	4041.97	0.008
L23	71.75 - 70.5 (23)	TP31.5013x31.2487x0.7625	1.25	0.00	0.0	75.4714	-32.01	4075.45	0.008
L24	70.5 - 70.25 (24)	TP31.5518x31.5013x0.7875	0.25	0.00	0.0	78.0105	-32.13	4212.57	0.008
L25	70.25 - 70 (25)	TP31.6023x31.5518x0.7875	0.25	0.00	0.0	78.1386	-32.23	4219.48	0.008
L26	70 - 69.75 (26)	TP31.6528x31.6023x0.725	0.25	0.00	0.0	72.2010	-32.33	3898.85	0.008
L27	69.75 - 69.5 (27)	TP31.7033x31.6528x0.875	0.25	0.00	0.0	86.8588	-32.43	4690.37	0.007
L28	69.5 - 69.25 (28)	TP31.7538x31.7033x0.75	0.25	0.00	0.0	74.8742	-32.52	4043.21	0.008
L29	69.25 - 64.25 (29)	TP32.764x31.7538x0.7375	5.00	0.00	0.0	76.0550	-34.31	4106.97	0.008
L30	64.25 - 59.25 (30)	TP33.7742x32.764x0.7125	5.00	0.00	0.0	75.8519	-36.16	4096.00	0.009
L31	59.25 - 56 (31)	TP34.4309x33.7742x0.7125	3.25	0.00	0.0	77.3583	-37.37	4177.35	0.009
L32	56 - 55.75 (32)	TP34.4814x34.4309x0.8125	0.25	0.00	0.0	88.0862	-37.51	4756.65	0.008
L33	55.75 - 55.5 (33)	TP34.5319x34.4814x0.8125	0.25	0.00	0.0	88.2183	-37.63	4763.79	0.008
L34	55.5 - 55.25 (34)	TP34.5824x34.5319x0.8875	0.25	0.00	0.0	96.2915	-37.75	5199.74	0.007

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L35	55.25 - 54 (35)	TP34.8349x34.5824x0.875	1.25	0.00	0.0	95.6821	-38.36	5166.83	0.007
L36	54 - 53.75 (36)	TP34.8854x34.8349x0.75	0.25	0.00	0.0	82.4371	-38.49	4451.60	0.009
L37	53.75 - 53.5 (37)	TP34.936x34.8854x0.7375	0.25	0.00	0.0	81.2128	-38.61	4385.49	0.009
L38	53.5 - 53.25 (38)	TP34.9865x34.936x0.6625	0.25	0.00	0.0	73.2216	-38.72	3953.97	0.010
L39	53.25 - 53 (39)	TP35.037x34.9865x0.6	0.25	0.00	0.0	66.5322	-38.82	3592.74	0.011
L40	53 - 48 (40)	TP36.0472x35.037x0.5875	5.00	0.00	0.0	67.0808	-40.94	3622.36	0.011
L41	48 - 39.75 (41)	TP37.714x36.0472x0.5875	8.25	0.00	0.0	68.4186	-42.45	3694.60	0.011
L42	39.75 - 38.75 (42)	TP37.291x36.1293x0.6625	5.75	0.00	0.0	78.1378	-46.34	4219.44	0.011
L43	38.75 - 34.75 (43)	TP38.0992x37.291x0.6625	4.00	0.00	0.0	79.8618	-48.11	4312.54	0.011
L44	34.75 - 34.5 (44)	TP38.1497x38.0992x0.825	0.25	0.00	0.0	99.1530	-48.26	5354.26	0.009
L45	34.5 - 33.75 (45)	TP38.3012x38.1497x0.825	0.75	0.00	0.0	99.5556	-48.64	5376.00	0.009
L46	33.75 - 33.5 (46)	TP38.3517x38.3012x0.625	0.25	0.00	0.0	75.9250	-48.76	4099.95	0.012
L47	33.5 - 28.5 (47)	TP39.3619x38.3517x0.6125	5.00	0.00	0.0	76.4235	-51.02	4126.87	0.012
L48	28.5 - 24 (48)	TP40.2711x39.3619x0.6625	4.50	0.00	0.0	84.4950	-53.08	4562.73	0.012
L49	24 - 23.75 (49)	TP40.3216x40.2711x0.7	0.25	0.00	0.0	89.3071	-53.22	4822.58	0.011
L50	23.75 - 18.75 (50)	TP41.3318x40.3216x0.6875	5.00	0.00	0.0	89.9763	-55.62	4858.72	0.011
L51	18.75 - 14.25 (51)	TP42.241x41.3318x0.675	4.50	0.00	0.0	90.3436	-57.82	4878.56	0.012
L52	14.25 - 14 (52)	TP42.2915x42.241x0.775	0.25	0.00	0.0	103.6040	-57.97	5594.63	0.010
L53	14 - 9 (53)	TP43.3017x42.2915x0.7625	5.00	0.00	0.0	104.4440	-60.65	5639.99	0.011
L54	9 - 5 (54)	TP44.1098x43.3017x0.75	4.00	0.00	0.0	104.7140	-62.76	5654.55	0.011
L55	5 - 4.75 (55)	TP44.1603x44.1098x0.9125	0.25	0.00	0.0	127.0730	-62.92	6861.94	0.009
L56	4.75 - 4.5 (56)	TP44.2108x44.1603x0.8	0.25	0.00	0.0	111.8260	-63.06	6038.62	0.010
L57	4.5 - 0 (57)	TP45.12x44.2108x0.7875	4.50	0.00	0.0	112.4160	-65.55	6070.47	0.011

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{nx} kip-ft	Ratio M _{ux} / φM _{nx}	M _{uy} kip-ft	φM _{ny} kip-ft	Ratio M _{uy} / φM _{ny}
L1	120 - 115 (1)	TP23.0102x22x0.25	32.27	564.83	0.057	0.00	564.83	0.000
L2	115 - 110 (2)	TP24.0205x23.0102x0.25	84.05	607.66	0.138	0.00	607.66	0.000
L3	110 - 105 (3)	TP25.0307x24.0205x0.25	146.88	651.21	0.226	0.00	651.21	0.000
L4	105 - 100 (4)	TP26.041x25.0307x0.25	245.50	695.40	0.353	0.00	695.40	0.000
L5	100 - 99.25 (5)	TP26.1925x26.041x0.25	259.71	702.08	0.370	0.00	702.08	0.000
L6	99.25 - 99 (6)	TP26.243x26.1925x0.3625	264.47	1077.22	0.246	0.00	1077.22	0.000
L7	99 - 94 (7)	TP27.2532x26.243x0.3563	386.60	1144.31	0.338	0.00	1144.31	0.000
L8	94 - 90.08 (8)	TP28.0453x27.2532x0.35	495.13	1192.67	0.415	0.00	1192.67	0.000
L9	90.08 - 89.83 (9)	TP28.0958x28.0453x0.5125	502.16	1722.21	0.292	0.00	1722.21	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L10	89.83 - 89.5 (10)	TP28.1625x28.0958x0.51 25	511.46	1730.62	0.296	0.00	1730.62	0.000
L11	89.5 - 89.25 (11)	TP28.213x28.1625x0.725	518.52	2401.11	0.216	0.00	2401.11	0.000
L12	89.25 - 84.25 (12)	TP29.2232x28.213x0.7	668.21	2500.69	0.267	0.00	2500.69	0.000
L13	84.25 - 78 (13)	TP30.486x29.2232x0.7	750.24	2591.13	0.290	0.00	2591.13	0.000
L14	78 - 77 (14)	TP30.188x29.2283x0.862 5	910.14	3241.57	0.281	0.00	3241.57	0.000
L15	77 - 76.75 (15)	TP30.2385x30.188x0.862 5	918.70	3252.92	0.282	0.00	3252.92	0.000
L16	76.75 - 76.5 (16)	TP30.289x30.2385x0.962 5	927.28	3605.72	0.257	0.00	3605.72	0.000
L17	76.5 - 75.5 (17)	TP30.4911x30.289x0.962 5	961.73	3656.38	0.263	0.00	3656.38	0.000
L18	75.5 - 75.25 (18)	TP30.5416x30.4911x0.76 25	970.38	2966.04	0.327	0.00	2966.04	0.000
L19	75.25 - 74.5 (19)	TP30.6931x30.5416x0.76 25	996.56	2996.68	0.333	0.00	2996.68	0.000
L20	74.5 - 74.25 (20)	TP30.7436x30.6931x0.83 75	1005.28	3277.97	0.307	0.00	3277.97	0.000
L21	74.25 - 72 (21)	TP31.1982x30.7436x0.82 5	1084.42	3333.43	0.325	0.00	3333.43	0.000
L22	72 - 71.75 (22)	TP31.2487x31.1982x0.76 25	1093.28	3110.38	0.351	0.00	3110.38	0.000
L23	71.75 - 70.5 (23)	TP31.5013x31.2487x0.76 25	1137.80	3162.76	0.360	0.00	3162.76	0.000
L24	70.5 - 70.25 (24)	TP31.5518x31.5013x0.78 75	1146.74	3269.36	0.351	0.00	3269.36	0.000
L25	70.25 - 70 (25)	TP31.6023x31.5518x0.78 75	1155.70	3280.23	0.352	0.00	3280.23	0.000
L26	70 - 69.75 (26)	TP31.6528x31.6023x0.72 5	1164.68	3048.38	0.382	0.00	3048.38	0.000
L27	69.75 - 69.5 (27)	TP31.7033x31.6528x0.87 5	1173.67	3637.88	0.323	0.00	3637.88	0.000
L28	69.5 - 69.25 (28)	TP31.7538x31.7033x0.75	1182.67	3166.69	0.373	0.00	3166.69	0.000
L29	69.25 - 64.25 (29)	TP32.764x31.7538x0.737 5	1365.51	3326.52	0.410	0.00	3326.52	0.000
L30	64.25 - 59.25 (30)	TP33.7742x32.764x0.712 5	1553.67	3429.82	0.453	0.00	3429.82	0.000
L31	59.25 - 56 (31)	TP34.4309x33.7742x0.71 25	1678.80	3568.88	0.470	0.00	3568.88	0.000
L32	56 - 55.75 (32)	TP34.4814x34.4309x0.81 25	1688.53	4045.94	0.417	0.00	4045.94	0.000
L33	55.75 - 55.5 (33)	TP34.5319x34.4814x0.81 25	1698.26	4058.23	0.418	0.00	4058.23	0.000
L34	55.5 - 55.25 (34)	TP34.5824x34.5319x0.88 75	1708.00	4416.73	0.387	0.00	4416.73	0.000
L35	55.25 - 54 (35)	TP34.8349x34.5824x0.87 5	1756.95	4425.77	0.397	0.00	4425.77	0.000
L36	54 - 53.75 (36)	TP34.8854x34.8349x0.75	1766.78	3847.06	0.459	0.00	3847.06	0.000
L37	53.75 - 53.5 (37)	TP34.936x34.8854x0.737 5	1776.63	3798.43	0.468	0.00	3798.43	0.000
L38	53.5 - 53.25 (38)	TP34.9865x34.936x0.662 5	1786.48	3444.88	0.519	0.00	3444.88	0.000
L39	53.25 - 53 (39)	TP35.037x34.9865x0.6	1796.35	3146.26	0.571	0.00	3146.26	0.000
L40	53 - 48 (40)	TP36.0472x35.037x0.587 5	1996.36	3269.16	0.611	0.00	3269.16	0.000
L41	48 - 39.75 (41)	TP37.714x36.0472x0.587 5	2139.29	3401.93	0.629	0.00	3401.93	0.000
L42	39.75 - 38.75 (42)	TP37.291x36.1293x0.662 5	2379.84	3927.67	0.606	0.00	3927.67	0.000
L43	38.75 - 34.75 (43)	TP38.0992x37.291x0.662 5	2551.20	4104.48	0.622	0.00	4104.48	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L44	34.75 - 34.5 (44)	TP38.1497x38.0992x0.825	2562.01	5058.79	0.506	0.00	5058.79	0.000
L45	34.5 - 33.75 (45)	TP38.3012x38.1497x0.825	2594.52	5100.39	0.509	0.00	5100.39	0.000
L46	33.75 - 33.5 (46)	TP38.3517x38.3012x0.625	2605.38	3936.75	0.662	0.00	3936.75	0.000
L47	33.5 - 28.5 (47)	TP39.3619x38.3517x0.6125	2824.93	4073.06	0.694	0.00	4073.06	0.000
L48	28.5 - 24 (48)	TP40.2711x39.3619x0.6625	3026.31	4598.92	0.658	0.00	4598.92	0.000
L49	24 - 23.75 (49)	TP40.3216x40.2711x0.7	3037.60	4857.93	0.625	0.00	4857.93	0.000
L50	23.75 - 18.75 (50)	TP41.3318x40.3216x0.6875	3265.64	5024.38	0.650	0.00	5024.38	0.000
L51	18.75 - 14.25 (51)	TP42.241x41.3318x0.675	3474.36	5162.72	0.673	0.00	5162.72	0.000
L52	14.25 - 14 (52)	TP42.2915x42.241x0.775	3486.05	5899.37	0.591	0.00	5899.37	0.000
L53	14 - 9 (53)	TP43.3017x42.2915x0.7625	3721.89	6098.13	0.610	0.00	6098.13	0.000
L54	9 - 5 (54)	TP44.1098x43.3017x0.75	3913.38	6235.67	0.628	0.00	6235.67	0.000
L55	5 - 4.75 (55)	TP44.1603x44.1098x0.9125	3925.43	7519.49	0.522	0.00	7519.49	0.000
L56	4.75 - 4.5 (56)	TP44.2108x44.1603x0.8	3937.48	6659.64	0.591	0.00	6659.64	0.000
L57	4.5 - 0 (57)	TP45.12x44.2108x0.7875	4156.29	6841.37	0.608	0.00	6841.37	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	120 - 115 (1)	TP23.0102x22x0.25	5.52	296.82	0.019	1.40	594.24	0.002
L2	115 - 110 (2)	TP24.0205x23.0102x0.25	12.11	309.99	0.039	1.02	648.17	0.002
L3	110 - 105 (3)	TP25.0307x24.0205x0.25	13.06	323.17	0.040	0.99	704.43	0.001
L4	105 - 100 (4)	TP26.041x25.0307x0.25	18.88	336.34	0.056	1.00	763.04	0.001
L5	100 - 99.25 (5)	TP26.1925x26.041x0.25	19.02	338.32	0.056	1.01	772.03	0.001
L6	99.25 - 99 (6)	TP26.243x26.1925x0.3625	19.07	489.39	0.039	1.01	1114.10	0.001
L7	99 - 94 (7)	TP27.2532x26.243x0.3563	27.30	499.84	0.055	0.99	1182.58	0.001
L8	94 - 90.08 (8)	TP28.0453x27.2532x0.35	28.10	505.64	0.056	1.01	1231.83	0.001
L9	90.08 - 89.83 (9)	TP28.0958x28.0453x0.5125	28.15	737.41	0.038	1.02	1789.19	0.001
L10	89.83 - 89.5 (10)	TP28.1625x28.0958x0.5125	28.22	739.20	0.038	1.02	1797.85	0.001
L11	89.5 - 89.25 (11)	TP28.213x28.1625x0.725	28.27	1039.56	0.027	1.02	2513.58	0.000
L12	89.25 - 84.25 (12)	TP29.2232x28.213x0.7	32.55	1041.52	0.031	1.29	2613.16	0.000
L13	84.25 - 78 (13)	TP30.486x29.2232x0.7	33.09	1059.96	0.031	1.31	2706.53	0.000
L14	78 - 77 (14)	TP30.188x29.2283x0.8625	34.23	1319.40	0.026	1.35	3403.47	0.000
L15	77 - 76.75 (15)	TP30.2385x30.188x0.8625	34.29	1321.67	0.026	1.35	3415.20	0.000
L16	76.75 - 76.5 (16)	TP30.289x30.2385x0.9625	34.34	1472.42	0.023	1.35	3798.33	0.000
L17	76.5 - 75.5 (17)	TP30.4911x30.289x0.9625	34.57	1482.57	0.023	1.36	3850.85	0.000
L18	75.5 - 75.25 (18)	TP30.5416x30.4911x0.7625	34.62	1184.46	0.029	1.36	3102.65	0.000
L19	75.25 - 74.5 (19)	TP30.6931x30.5416x0.7625	34.87	1190.49	0.029	1.59	3134.31	0.001

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio V_u ϕV_n	Actual T_u kip-ft	ϕT_n kip-ft	Ratio T_u ϕT_n
L20	74.5 - 74.25 (20)	TP30.7436x30.6931x0.83 75	34.93	1306.52	0.027	1.59	3436.97	0.000
L21	74.25 - 72 (21)	TP31.1982x30.7436x0.82 5	35.43	1307.12	0.027	1.59	3492.26	0.000
L22	72 - 71.75 (22)	TP31.2487x31.1982x0.76 25	35.48	1212.59	0.029	1.59	3251.76	0.000
L23	71.75 - 70.5 (23)	TP31.5013x31.2487x0.76 25	35.77	1222.64	0.029	1.59	3305.85	0.000
L24	70.5 - 70.25 (24)	TP31.5518x31.5013x0.78 75	35.82	1263.77	0.028	1.59	3419.91	0.000
L25	70.25 - 70 (25)	TP31.6023x31.5518x0.78 75	35.87	1265.85	0.028	1.59	3431.15	0.000
L26	70 - 69.75 (26)	TP31.6528x31.6023x0.72 5	35.93	1169.66	0.031	1.59	3182.05	0.001
L27	69.75 - 69.5 (27)	TP31.7033x31.6528x0.87 5	35.98	1407.11	0.026	1.59	3815.73	0.000
L28	69.5 - 69.25 (28)	TP31.7538x31.7033x0.75 5	36.04	1212.96	0.030	1.59	3307.97	0.000
L29	69.25 - 64.25 (29)	TP32.764x31.7538x0.737 5	37.12	1232.09	0.030	1.59	3470.98	0.000
L30	64.25 - 59.25 (30)	TP33.7742x32.764x0.712 5	38.17	1228.80	0.031	1.57	3573.61	0.000
L31	59.25 - 56 (31)	TP34.4309x33.7742x0.71 25	38.86	1253.20	0.031	1.56	3716.97	0.000
L32	56 - 55.75 (32)	TP34.4814x34.4309x0.81 25	38.91	1427.00	0.027	1.56	4226.21	0.000
L33	55.75 - 55.5 (33)	TP34.5319x34.4814x0.81 25	38.96	1429.14	0.027	1.56	4238.90	0.000
L34	55.5 - 55.25 (34)	TP34.5824x34.5319x0.88 75	39.02	1559.92	0.025	1.56	4623.46	0.000
L35	55.25 - 54 (35)	TP34.8349x34.5824x0.87 5	39.31	1550.05	0.025	1.57	4630.33	0.000
L36	54 - 53.75 (36)	TP34.8854x34.8349x0.75 5	39.35	1335.48	0.029	1.57	4009.98	0.000
L37	53.75 - 53.5 (37)	TP34.936x34.8854x0.737 5	39.40	1315.65	0.030	1.58	3957.72	0.000
L38	53.5 - 53.25 (38)	TP34.9865x34.936x0.662 5	39.46	1186.19	0.033	1.58	3581.39	0.000
L39	53.25 - 53 (39)	TP35.037x34.9865x0.6 5	39.51	1077.82	0.037	1.58	3264.92	0.000
L40	53 - 48 (40)	TP36.0472x35.037x0.587 5	40.51	1086.71	0.037	1.63	3389.60	0.000
L41	48 - 39.75 (41)	TP37.714x36.0472x0.587 5	41.20	1108.38	0.037	1.67	3526.13	0.000
L42	39.75 - 38.75 (42)	TP37.291x36.1293x0.662 5	42.48	1265.83	0.034	1.74	4078.45	0.000
L43	38.75 - 34.75 (43)	TP38.0992x37.291x0.662 5	43.24	1293.76	0.033	1.78	4260.41	0.000
L44	34.75 - 34.5 (44)	TP38.1497x38.0992x0.82 5	43.27	1606.28	0.027	1.78	5273.72	0.000
L45	34.5 - 33.75 (45)	TP38.3012x38.1497x0.82 5	43.43	1612.80	0.027	1.79	5316.63	0.000
L46	33.75 - 33.5 (46)	TP38.3517x38.3012x0.62 5	43.46	1229.99	0.035	1.79	4081.78	0.000
L47	33.5 - 28.5 (47)	TP39.3619x38.3517x0.61 25	44.38	1238.06	0.036	1.85	4219.95	0.000
L48	28.5 - 24 (48)	TP40.2711x39.3619x0.66 25	45.17	1368.82	0.033	1.89	4769.09	0.000
L49	24 - 23.75 (49)	TP40.3216x40.2711x0.7 5	45.19	1446.77	0.031	1.89	5042.35	0.000
L50	23.75 - 18.75 (50)	TP41.3318x40.3216x0.68 75	46.05	1457.62	0.032	1.94	5211.26	0.000
L51	18.75 - 14.25 (51)	TP42.241x41.3318x0.675 5	46.76	1463.57	0.032	1.97	5351.18	0.000
L52	14.25 - 14 (52)	TP42.2915x42.241x0.775 5	46.77	1678.39	0.028	1.98	6129.33	0.000
L53	14 - 9 (53)	TP43.3017x42.2915x0.76 25	47.58	1692.00	0.028	2.02	6331.23	0.000
L54	9 - 5 (54)	TP44.1098x43.3017x0.75 5	48.21	1696.37	0.028	2.03	6470.03	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L55	5 - 4.75 (55)	TP44.1603x44.1098x0.9125	48.24	2058.58	0.023	2.03	7831.27	0.000
L56	4.75 - 4.5 (56)	TP44.2108x44.1603x0.8	48.28	1811.59	0.027	2.03	6917.62	0.000
L57	4.5 - 0 (57)	TP45.12x44.2108x0.7875	49.02	1821.14	0.027	2.02	7101.76	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio P_u	Ratio M_{ux}	Ratio M_{uy}	Ratio V_u	Ratio T_u	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		ϕP_n	ϕM_{nx}	ϕM_{ny}	ϕV_n	ϕT_n			
L1	120 - 115 (1)	0.005	0.057	0.000	0.019	0.002	0.062	1.050	4.8.2
L2	115 - 110 (2)	0.008	0.138	0.000	0.039	0.002	0.148	1.050	4.8.2
L3	110 - 105 (3)	0.008	0.226	0.000	0.040	0.001	0.236	1.050	4.8.2
L4	105 - 100 (4)	0.013	0.353	0.000	0.056	0.001	0.369	1.050	4.8.2
L5	100 - 99.25 (5)	0.013	0.370	0.000	0.056	0.001	0.386	1.050	4.8.2
L6	99.25 - 99 (6)	0.009	0.246	0.000	0.039	0.001	0.256	1.050	4.8.2
L7	99 - 94 (7)	0.012	0.338	0.000	0.055	0.001	0.353	1.050	4.8.2
L8	94 - 90.08 (8)	0.013	0.415	0.000	0.056	0.001	0.431	1.050	4.8.2
L9	90.08 - 89.83 (9)	0.009	0.292	0.000	0.038	0.001	0.302	1.050	4.8.2
L10	89.83 - 89.5 (10)	0.009	0.296	0.000	0.038	0.001	0.306	1.050	4.8.2
L11	89.5 - 89.25 (11)	0.006	0.216	0.000	0.027	0.000	0.223	1.050	4.8.2
L12	89.25 - 84.25 (12)	0.008	0.267	0.000	0.031	0.000	0.276	1.050	4.8.2
L13	84.25 - 78 (13)	0.008	0.290	0.000	0.031	0.000	0.298	1.050	4.8.2
L14	78 - 77 (14)	0.007	0.281	0.000	0.026	0.000	0.288	1.050	4.8.2
L15	77 - 76.75 (15)	0.007	0.282	0.000	0.026	0.000	0.290	1.050	4.8.2
L16	76.75 - 76.5 (16)	0.006	0.257	0.000	0.023	0.000	0.264	1.050	4.8.2
L17	76.5 - 75.5 (17)	0.006	0.263	0.000	0.023	0.000	0.270	1.050	4.8.2
L18	75.5 - 75.25 (18)	0.008	0.327	0.000	0.029	0.000	0.336	1.050	4.8.2
L19	75.25 - 74.5 (19)	0.008	0.333	0.000	0.029	0.001	0.341	1.050	4.8.2
L20	74.5 - 74.25 (20)	0.007	0.307	0.000	0.027	0.000	0.314	1.050	4.8.2
L21	74.25 - 72 (21)	0.007	0.325	0.000	0.027	0.000	0.333	1.050	4.8.2
L22	72 - 71.75 (22)	0.008	0.351	0.000	0.029	0.000	0.360	1.050	4.8.2
L23	71.75 - 70.5 (23)	0.008	0.360	0.000	0.029	0.000	0.368	1.050	4.8.2
L24	70.5 - 70.25 (24)	0.008	0.351	0.000	0.028	0.000	0.359	1.050	4.8.2
L25	70.25 - 70 (25)	0.008	0.352	0.000	0.028	0.000	0.361	1.050	4.8.2
L26	70 - 69.75 (26)	0.008	0.382	0.000	0.031	0.001	0.391	1.050	4.8.2
L27	69.75 - 69.5 (27)	0.007	0.323	0.000	0.026	0.000	0.330	1.050	4.8.2
L28	69.5 - 69.25 (28)	0.008	0.373	0.000	0.030	0.000	0.382	1.050	4.8.2
L29	69.25 - 64.25 (29)	0.008	0.410	0.000	0.030	0.000	0.420	1.050	4.8.2
L30	64.25 - 59.25 (30)	0.009	0.453	0.000	0.031	0.000	0.463	1.050	4.8.2

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		P_u	M_{ux}	M_{uy}	V_u	T_u			
L31	59.25 - 56 (31)	0.009	0.470	0.000	0.031	0.000	0.480	1.050	4.8.2
L32	56 - 55.75 (32)	0.008	0.417	0.000	0.027	0.000	0.426	1.050	4.8.2
L33	55.75 - 55.5 (33)	0.008	0.418	0.000	0.027	0.000	0.427	1.050	4.8.2
L34	55.5 - 55.25 (34)	0.007	0.387	0.000	0.025	0.000	0.395	1.050	4.8.2
L35	55.25 - 54 (35)	0.007	0.397	0.000	0.025	0.000	0.405	1.050	4.8.2
L36	54 - 53.75 (36)	0.009	0.459	0.000	0.029	0.000	0.469	1.050	4.8.2
L37	53.75 - 53.5 (37)	0.009	0.468	0.000	0.030	0.000	0.477	1.050	4.8.2
L38	53.5 - 53.25 (38)	0.010	0.519	0.000	0.033	0.000	0.530	1.050	4.8.2
L39	53.25 - 53 (39)	0.011	0.571	0.000	0.037	0.000	0.583	1.050	4.8.2
L40	53 - 48 (40)	0.011	0.611	0.000	0.037	0.000	0.623	1.050	4.8.2
L41	48 - 39.75 (41)	0.011	0.629	0.000	0.037	0.000	0.642	1.050	4.8.2
L42	39.75 - 38.75 (42)	0.011	0.606	0.000	0.034	0.000	0.618	1.050	4.8.2
L43	38.75 - 34.75 (43)	0.011	0.622	0.000	0.033	0.000	0.634	1.050	4.8.2
L44	34.75 - 34.5 (44)	0.009	0.506	0.000	0.027	0.000	0.516	1.050	4.8.2
L45	34.5 - 33.75 (45)	0.009	0.509	0.000	0.027	0.000	0.518	1.050	4.8.2
L46	33.75 - 33.5 (46)	0.012	0.662	0.000	0.035	0.000	0.675	1.050	4.8.2
L47	33.5 - 28.5 (47)	0.012	0.694	0.000	0.036	0.000	0.707	1.050	4.8.2
L48	28.5 - 24 (48)	0.012	0.658	0.000	0.033	0.000	0.671	1.050	4.8.2
L49	24 - 23.75 (49)	0.011	0.625	0.000	0.031	0.000	0.637	1.050	4.8.2
L50	23.75 - 18.75 (50)	0.011	0.650	0.000	0.032	0.000	0.662	1.050	4.8.2
L51	18.75 - 14.25 (51)	0.012	0.673	0.000	0.032	0.000	0.686	1.050	4.8.2
L52	14.25 - 14 (52)	0.010	0.591	0.000	0.028	0.000	0.602	1.050	4.8.2
L53	14 - 9 (53)	0.011	0.610	0.000	0.028	0.000	0.622	1.050	4.8.2
L54	9 - 5 (54)	0.011	0.628	0.000	0.028	0.000	0.640	1.050	4.8.2
L55	5 - 4.75 (55)	0.009	0.522	0.000	0.023	0.000	0.532	1.050	4.8.2
L56	4.75 - 4.5 (56)	0.010	0.591	0.000	0.027	0.000	0.602	1.050	4.8.2
L57	4.5 - 0 (57)	0.011	0.608	0.000	0.027	0.000	0.619	1.050	4.8.2

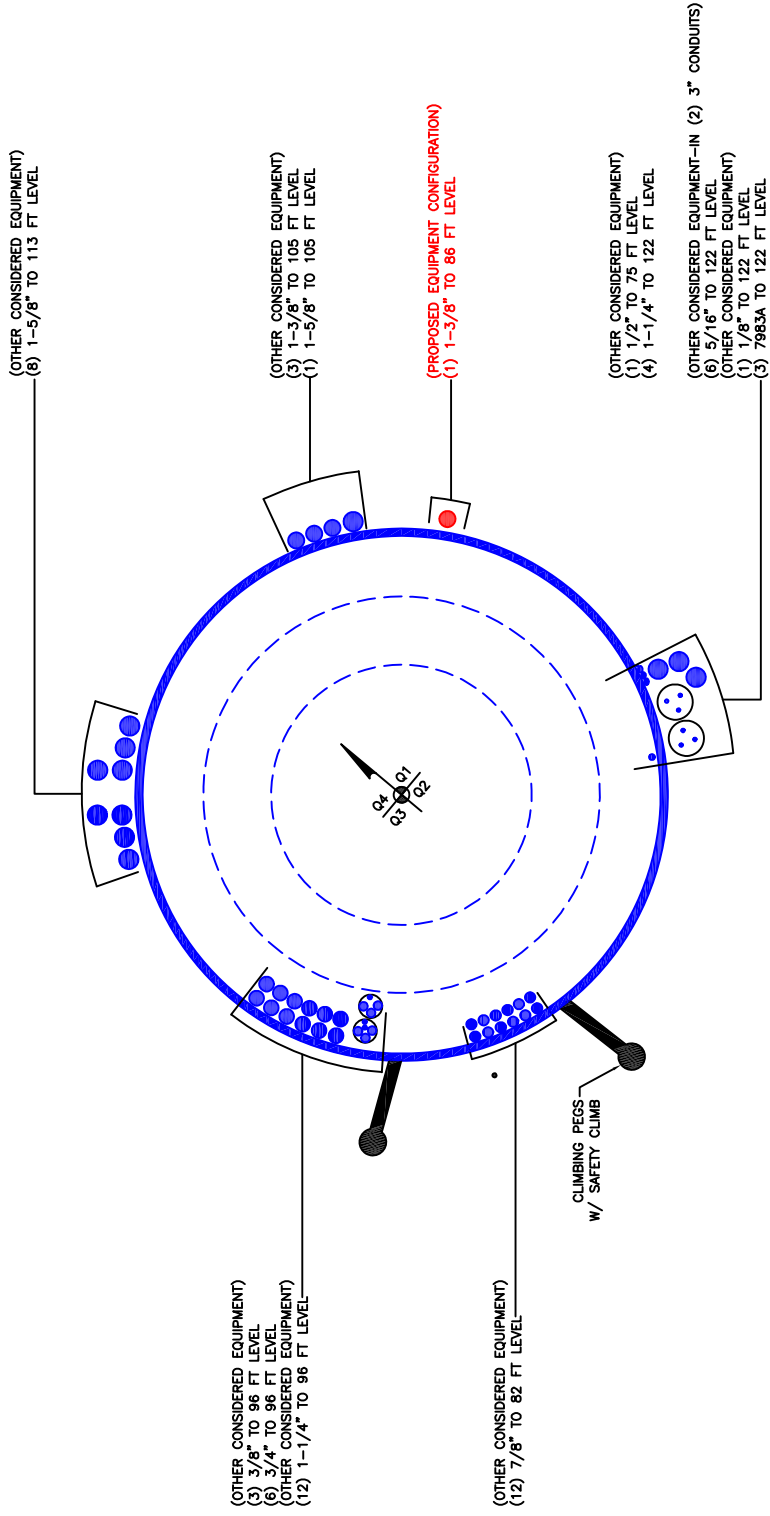
Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	120 - 115	Pole	TP23.0102x22x0.25	1	-4.69	1038.86	5.9	Pass
L2	115 - 110	Pole	TP24.0205x23.0102x0.25	2	-8.62	1084.96	14.1	Pass
L3	110 - 105	Pole	TP25.0307x24.0205x0.25	3	-9.08	1131.08	22.5	Pass
L4	105 - 100	Pole	TP26.041x25.0307x0.25	4	-14.55	1177.19	35.2	Pass
L5	100 - 99.25	Pole	TP26.1925x26.041x0.25	5	-14.64	1184.11	36.8	Pass
L6	99.25 - 99	Pole	TP26.243x26.1925x0.3625	6	-14.69	1712.85	24.4	Pass
L7	99 - 94	Pole	TP27.2532x26.243x0.3563	7	-20.66	1749.44	33.6	Pass
L8	94 - 90.08	Pole	TP28.0453x27.2532x0.35	8	-21.44	1769.75	41.1	Pass
L9	90.08 - 89.83	Pole	TP28.0958x28.0453x0.5125	9	-21.51	2580.94	28.7	Pass
L10	89.83 - 89.5	Pole	TP28.1625x28.0958x0.5125	10	-21.59	2587.18	29.1	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	σP_{allow} K	% Capacity	Pass Fail	
L11	89.5 - 89.25	Pole	TP28.213x28.1625x0.725	11	-21.66	3638.48	21.2	Pass	
L12	89.25 - 84.25	Pole	TP29.2232x28.213x0.7	12	-26.10	3645.32	26.3	Pass	
L13	84.25 - 78	Pole	TP30.486x29.2232x0.7	13	-26.83	3709.87	28.4	Pass	
L14	78 - 77	Pole	TP30.188x29.2283x0.8625	14	-29.52	4617.89	27.4	Pass	
L15	77 - 76.75	Pole	TP30.2385x30.188x0.8625	15	-29.62	4625.85	27.6	Pass	
L16	76.75 - 76.5	Pole	TP30.289x30.2385x0.9625	16	-29.73	5153.47	25.1	Pass	
L17	76.5 - 75.5	Pole	TP30.4911x30.289x0.9625	17	-30.12	5188.98	25.7	Pass	
L18	75.5 - 75.25	Pole	TP30.5416x30.4911x0.7625	18	-30.22	4145.62	32.0	Pass	
L19	75.25 - 74.5	Pole	TP30.6931x30.5416x0.7625	19	-30.57	4166.73	32.5	Pass	
L20	74.5 - 74.25	Pole	TP30.7436x30.6931x0.8375	20	-30.66	4572.81	29.9	Pass	
L21	74.25 - 72	Pole	TP31.1982x30.7436x0.825	21	-31.44	4574.92	31.7	Pass	
L22	72 - 71.75	Pole	TP31.2487x31.1982x0.7625	22	-31.54	4244.07	34.3	Pass	
L23	71.75 - 70.5	Pole	TP31.5013x31.2487x0.7625	23	-32.01	4279.22	35.1	Pass	
L24	70.5 - 70.25	Pole	TP31.5518x31.5013x0.7875	24	-32.13	4423.20	34.2	Pass	
L25	70.25 - 70	Pole	TP31.6023x31.5518x0.7875	25	-32.23	4430.45	34.4	Pass	
L26	70 - 69.75	Pole	TP31.6528x31.6023x0.725	26	-32.33	4093.79	37.3	Pass	
L27	69.75 - 69.5	Pole	TP31.7033x31.6528x0.875	27	-32.43	4924.89	31.4	Pass	
L28	69.5 - 69.25	Pole	TP31.7538x31.7033x0.75	28	-32.52	4245.37	36.4	Pass	
L29	69.25 - 64.25	Pole	TP32.764x31.7538x0.7375	29	-34.31	4312.32	40.0	Pass	
L30	64.25 - 59.25	Pole	TP33.7742x32.764x0.7125	30	-36.16	4300.80	44.1	Pass	
L31	59.25 - 56	Pole	TP34.4309x33.7742x0.7125	31	-37.37	4386.22	45.7	Pass	
L32	56 - 55.75	Pole	TP34.4814x34.4309x0.8125	32	-37.51	4994.48	40.6	Pass	
L33	55.75 - 55.5	Pole	TP34.5319x34.4814x0.8125	33	-37.63	5001.98	40.7	Pass	
L34	55.5 - 55.25	Pole	TP34.5824x34.5319x0.8875	34	-37.75	5459.73	37.6	Pass	
L35	55.25 - 54	Pole	TP34.8349x34.5824x0.875	35	-38.36	5425.17	38.6	Pass	
L36	54 - 53.75	Pole	TP34.8854x34.8349x0.75	36	-38.49	4674.18	44.6	Pass	
L37	53.75 - 53.5	Pole	TP34.936x34.8854x0.7375	37	-38.61	4604.76	45.5	Pass	
L38	53.5 - 53.25	Pole	TP34.9865x34.936x0.6625	38	-38.72	4151.67	50.4	Pass	
L39	53.25 - 53	Pole	TP35.037x34.9865x0.6	39	-38.82	3772.38	55.5	Pass	
L40	53 - 48	Pole	TP36.0472x35.037x0.5875	40	-40.94	3803.48	59.4	Pass	
L41	48 - 39.75	Pole	TP37.714x36.0472x0.5875	41	-42.45	3879.33	61.1	Pass	
L42	39.75 - 38.75	Pole	TP37.291x36.1293x0.6625	42	-46.34	4430.41	58.9	Pass	
L43	38.75 - 34.75	Pole	TP38.0992x37.291x0.6625	43	-48.11	4528.17	60.4	Pass	
L44	34.75 - 34.5	Pole	TP38.1497x38.0992x0.825	44	-48.26	5621.97	49.2	Pass	
L45	34.5 - 33.75	Pole	TP38.3012x38.1497x0.825	45	-48.64	5644.80	49.4	Pass	
L46	33.75 - 33.5	Pole	TP38.3517x38.3012x0.625	46	-48.76	4304.95	64.3	Pass	
L47	33.5 - 28.5	Pole	TP39.3619x38.3517x0.6125	47	-51.02	4333.21	67.4	Pass	
L48	28.5 - 24	Pole	TP40.2711x39.3619x0.6625	48	-53.08	4790.87	63.9	Pass	
L49	24 - 23.75	Pole	TP40.3216x40.2711x0.7	49	-53.22	5063.71	60.7	Pass	
L50	23.75 - 18.75	Pole	TP41.3318x40.3216x0.6875	50	-55.62	5101.66	63.1	Pass	
L51	18.75 - 14.25	Pole	TP42.241x41.3318x0.675	51	-57.82	5122.49	65.3	Pass	
L52	14.25 - 14	Pole	TP42.2915x42.241x0.775	52	-57.97	5874.36	57.3	Pass	
L53	14 - 9	Pole	TP43.3017x42.2915x0.7625	53	-60.65	5921.99	59.2	Pass	
L54	9 - 5	Pole	TP44.1098x43.3017x0.75	54	-62.76	5937.28	60.9	Pass	
L55	5 - 4.75	Pole	TP44.1603x44.1098x0.9125	55	-62.92	7205.04	50.6	Pass	
L56	4.75 - 4.5	Pole	TP44.2108x44.1603x0.8	56	-63.06	6340.55	57.4	Pass	
L57	4.5 - 0	Pole	TP45.12x44.2108x0.7875	57	-65.55	6373.99	59.0	Pass	
							Summary		
							Pole (L47)	67.4	Pass
							RATING =	67.4	Pass

***NOTE: Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C.**

APPENDIX B
BASE LEVEL DRAWING



APPENDIX C
ADDITIONAL CALCULATIONS

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	120	42	3.75	12	22	30.486	0.25	Auto	A607-60
2	81.75	42	4.75	12	29.23	37.714	0.3125	Auto	A607-60
3	44.5	44.5	0	12	36.13	45.12	0.375	Auto	A607-60

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12
1	0	4.75	plate	(TS) 1.25x4.00 (65 ksi)	3			0		0							0
2	0	24	channel	MP3-04 (1.25in)	4			0		0							0
3	4.75	34.75	plate	PL 1" X 5"	4			3			-3		-4				-3.3
4	33.75	69.75	plate	PL 1" X 5"	4			-2.5			2.5		2.5				2.5
5	0	14.25	channel	MP3-03 (1.25in)	4			-1.8			1.5		1.5				1.75
6	24	44.25	channel	MP3-03 (1.25in)	4			0		0				0			0
7	53.5	70.5	plate	CCI-SFP-045100	1												2.25
8	53.25	72	plate	CCI-SFP-065125	1			0									
9	54	70	plate	CCI-AFP-045100	2					0				0			
10	69.5	89.5	plate	CCI-AFP-060100	2	0									0		
11	70	90.08	plate	CCI-AFP-045100	2					0					0		
12	44	56	plate	CCI-SFP-045100	3				3		-3		-3				
13	43.75	55.5	plate	CCI-SFP-045100	1												-3
14	74.5	99.25	plate	PL 1.25" X 4"	1				0								
15	75.5	99.25	plate	PL 1.25" X 4"	1						0						
16	75.5	99.25	plate	PL 1.25" X 4"	1												0
17	69.75	78.5	plate	PL 1.25" X 4"	2				0			0					
18	70	78.5	plate	PL 1.25" X 4"	1												-2
19	69.75	76.75	plate	PL 1.25" X 4"	1								-3				
20	0	5	plate	(TS) 1.25x6.00	1											0	
21	0	5	plate	(TS) 1.25x6.00 (mod)	1							0					
22																	

Reinforcement Details

	B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in ²)	Bolt Hole Size (in)	Reinforcement Material
1	1.25	4	5	8	Welded	n/a	Welded	n/a	6.000	5.000	0.0000	A572-65
2	4.78	1.61	4.13	0.61	PC 8.8 - M20 (100)	17	PC 8.8 - M20 (100)	17.000	18.000	3.566	1.2500	A572-65
3	5	1	5	0.5	PC 8.8 - M20 (100)	27	PC 8.8 - M20 (100)	27.000	18.000	3.750	1.1875	A572-65
4	5	1	5	0.5	PC 8.8 - M20 (100)	27	PC 8.8 - M20 (100)	27.000	18.000	3.750	1.1875	A572-65
5	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.526	1.2500	A572-65
6	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.526	1.2500	A572-65
7	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
8	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	33	PC 8.8 - M20 (100)	33.000	19.000	6.563	1.1875	A572-65
9	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
10	6	1	6	0.5	PC 8.8 - M20 (100)	30	PC 8.8 - M20 (100)	30.000	16.000	4.750	1.1875	A572-65
11	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
12	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
13	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
14	4	1.25	5	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	27.000	3.438	1.1875	A572-65
15	4	1.25	5	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	27.000	3.438	1.1875	A572-65
16	4	1.25	5	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	27.000	3.438	1.1875	A572-65
17	4	1.25	5	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	27.000	3.438	1.1875	A572-65
18	4	1.25	5	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	27.000	3.438	1.1875	A572-65
19	4	1.25	5	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	27.000	3.438	1.1875	A572-65
20	1.25	5.25	6.5625	3.375	Welded	n/a	Welded	n/a	1.250	6.563	0.0000	A572-65
21	1.25	5.1875	6.48438	3.34375	Welded	n/a	Welded	n/a	1.250	6.484	0.0000	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
(TS) 1.25x4.00 (65 ksi)	Top	-	-	-	-	80	None	-	-	-	-	39	0.375	-
	Bottom	-	-	-	-	80	CJP Groove	8	0.625	45	0.625	-	-	-
PL 1" X 5"	Top	9	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	9	N	3	3	-	-	-	-	-	-	-	-	-
PL 1.25" X 4"	Top	6	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	6	N	3	3	-	-	-	-	-	-	-	-	-
(TS) 1.25x6.00	Top	-	-	-	-	80	None	-	-	-	-	60	0.313	-
	Bottom	-	-	-	-	80	CJP Groove	10.5	0.625	45	0.3125	-	-	-
(TS) 1.25x6.00 (mod)	Top	-	-	-	-	80	None	-	-	-	-	60	0.313	-
	Bottom	-	-	-	-	80	CJP Groove	10.375	0.625	45	0.3125	-	-	-

TNX Geometry Input

Increment (ft): 5 [Export to TNX](#)

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	120 - 115	5		12	22.000	23.010	0.25	A607-60	1.000
2	115 - 110	5		12	23.010	24.020	0.25	A607-60	1.000
3	110 - 105	5		12	24.020	25.031	0.25	A607-60	1.000
4	105 - 100	5		12	25.031	26.041	0.25	A607-60	1.000
5	100 - 99.25	0.75		12	26.041	26.192	0.25	A607-60	1.000
6	99.25 - 99	0.25		12	26.192	26.243	0.35625	A607-60	1.042
7	99 - 94	5		12	26.243	27.253	0.35625	A607-60	1.029
8	94 - 90.08	3.92		12	27.253	28.045	0.3125	A607-60	1.161
9	90.08 - 89.83	0.25		12	28.045	28.096	0.5125	A607-60	1.020
10	89.83 - 89.5	0.33		12	28.096	28.162	0.5125	A607-60	1.019
11	89.5 - 89.25	0.25		12	28.162	28.213	0.725	A607-60	0.913
12	89.25 - 84.25	5		12	28.213	29.223	0.7	A607-60	0.924
13	84.25 - 81.75	6.25	3.75	12	29.223	30.486	0.7	A607-60	0.914
14	81.75 - 77	4.75		12	29.228	30.188	0.8625	A607-60	0.996
15	77 - 76.75	0.25		12	30.188	30.239	0.8625	A607-60	0.995
16	76.75 - 76.5	0.25		12	30.239	30.289	0.9625	A607-60	0.949
17	76.5 - 75.5	1		12	30.289	30.491	0.9625	A607-60	0.945
18	75.5 - 75.25	0.25		12	30.491	30.542	0.7625	A607-60	1.046
19	75.25 - 74.5	0.75		12	30.542	30.693	0.7625	A607-60	1.043
20	74.5 - 74.25	0.25		12	30.693	30.744	0.8375	A607-60	0.889
21	74.25 - 72	2.25		12	30.744	31.198	0.825	A607-60	0.894
22	72 - 71.75	0.25		12	31.198	31.249	0.7625	A607-60	1.073
23	71.75 - 70.5	1.25		12	31.249	31.501	0.7625	A607-60	1.068
24	70.5 - 70.25	0.25		12	31.501	31.552	0.7875	A607-60	1.091
25	70.25 - 70	0.25		12	31.552	31.602	0.7875	A607-60	1.090
26	70 - 69.75	0.25		12	31.602	31.653	0.725	A607-60	1.111
27	69.75 - 69.5	0.25		12	31.653	31.703	0.875	A607-60	0.982
28	69.5 - 69.25	0.25		12	31.703	31.754	0.75	A607-60	0.979
29	69.25 - 64.25	5		12	31.754	32.764	0.7375	A607-60	0.977
30	64.25 - 59.25	5		12	32.764	33.774	0.7125	A607-60	0.993
31	59.25 - 56	3.25		12	33.774	34.431	0.7125	A607-60	0.983
32	56 - 55.75	0.25		12	34.431	34.481	0.8125	A607-60	1.017
33	55.75 - 55.5	0.25		12	34.481	34.532	0.8125	A607-60	1.016
34	55.5 - 55.25	0.25		12	34.532	34.582	0.8875	A607-60	0.978
35	55.25 - 54	1.25		12	34.582	34.835	0.875	A607-60	0.987
36	54 - 53.75	0.25		12	34.835	34.885	0.75	A607-60	1.037
37	53.75 - 53.5	0.25		12	34.885	34.936	0.7375	A607-60	1.053
38	53.5 - 53.25	0.25		12	34.936	34.986	0.6625	A607-60	1.107
39	53.25 - 53	0.25		12	34.986	35.037	0.6	A607-60	1.097
40	53 - 48	5		12	35.037	36.047	0.5875	A607-60	1.103
41	48 - 44.5	8.25	4.75	12	36.047	37.714	0.5875	A607-60	1.092
42	44.5 - 38.75	5.75		12	36.129	37.291	0.6625	A607-60	0.976
43	38.75 - 34.75	4		12	37.291	38.099	0.6625	A607-60	0.968
44	34.75 - 34.5	0.25		12	38.099	38.150	0.825	A607-60	0.982
45	34.5 - 33.75	0.75		12	38.150	38.301	0.825	A607-60	0.980
46	33.75 - 33.5	0.25		12	38.301	38.352	0.625	A607-60	1.022
47	33.5 - 28.5	5		12	38.352	39.362	0.6125	A607-60	1.031
48	28.5 - 24	4.5		12	39.362	40.271	0.6625	A607-60	0.946
49	24 - 23.75	0.25		12	40.271	40.322	0.7	A607-60	0.950
50	23.75 - 18.75	5		12	40.322	41.332	0.6875	A607-60	0.956
51	18.75 - 14.25	4.5		12	41.332	42.241	0.675	A607-60	0.964
52	14.25 - 14	0.25		12	42.241	42.291	0.775	A607-60	0.954
53	14 - 9	5		12	42.291	43.302	0.7625	A607-60	0.958
54	9 - 5	4		12	43.302	44.110	0.75	A607-60	0.965
55	5 - 4.75	0.25		12	44.110	44.160	0.9125	A607-60	0.899
56	4.75 - 4.5	0.25		12	44.160	44.211	0.875	A607-60	0.895
57	4.5 - 0	4.5		12	44.211	45.120	0.85	A607-60	0.911

TNX Section Forces

Increment (ft): 5		TNX Output		
	Section Height (ft)	P _u (K)	M _{ux} (kip-ft)	V _u (K)
1	120 - 115	4.69	32.18	5.52
2	115 - 110	8.62	84.26	12.11
3	110 - 105	9.08	147.10	13.06
4	105 - 100	14.55	245.71	18.88
5	100 - 99.25	14.64	259.92	19.02
6	99.25 - 99	14.69	264.68	19.07
7	99 - 94	20.66	386.81	27.30
8	94 - 90.08	21.44	495.35	28.10
9	90.08 - 89.83	21.51	502.38	28.15
10	89.83 - 89.5	21.59	511.67	28.22
11	89.5 - 89.25	21.66	518.73	28.27
12	89.25 - 84.25	26.10	668.42	32.55
13	84.25 - 81.75	26.83	750.45	33.09
14	81.75 - 77	29.52	910.35	34.23
15	77 - 76.75	29.62	918.92	34.29
16	76.75 - 76.5	29.73	927.50	34.34
17	76.5 - 75.5	30.12	961.94	34.57
18	75.5 - 75.25	30.22	970.59	34.62
19	75.25 - 74.5	30.57	996.78	34.87
20	74.5 - 74.25	30.66	1005.50	34.93
21	74.25 - 72	31.44	1084.63	35.43
22	72 - 71.75	31.54	1093.50	35.48
23	71.75 - 70.5	32.01	1138.01	35.77
24	70.5 - 70.25	32.13	1146.96	35.82
25	70.25 - 70	32.23	1155.92	35.87
26	70 - 69.75	32.32	1164.89	35.93
27	69.75 - 69.5	32.43	1173.88	35.98
28	69.5 - 69.25	32.52	1182.88	36.04
29	69.25 - 64.25	34.31	1365.73	37.12
30	64.25 - 59.25	36.15	1553.89	38.17
31	59.25 - 56	37.37	1679.02	38.86
32	56 - 55.75	37.50	1688.74	38.91
33	55.75 - 55.5	37.63	1698.48	38.96
34	55.5 - 55.25	37.75	1708.22	39.02
35	55.25 - 54	38.36	1757.17	39.31
36	54 - 53.75	38.49	1767.00	39.35
37	53.75 - 53.5	38.61	1776.84	39.40
38	53.5 - 53.25	38.72	1786.70	39.46
39	53.25 - 53	38.82	1796.57	39.51
40	53 - 48	40.94	1996.58	40.51
41	48 - 44.5	42.45	2139.51	41.20
42	44.5 - 38.75	46.34	2380.06	42.48
43	38.75 - 34.75	48.11	2551.42	43.24
44	34.75 - 34.5	48.26	2562.23	43.27
45	34.5 - 33.75	48.64	2594.74	43.43
46	33.75 - 33.5	48.76	2605.60	43.46
47	33.5 - 28.5	51.02	2825.15	44.38
48	28.5 - 24	53.08	3026.53	45.17
49	24 - 23.75	53.22	3037.82	45.19
50	23.75 - 18.75	55.62	3265.87	46.05
51	18.75 - 14.25	57.82	3474.58	46.76
52	14.25 - 14	57.97	3486.27	46.77
53	14 - 9	60.65	3722.12	47.58
54	9 - 5	62.76	3913.60	48.21
55	5 - 4.75	62.92	3925.65	48.24
56	4.75 - 4.5	63.06	3937.71	48.28
57	4.5 - 0	65.55	4156.51	49.02

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
120 - 115	Pole	TP23.01x22x0.25	Pole	5.9%	Pass
115 - 110	Pole	TP24.02x23.01x0.25	Pole	14.1%	Pass
110 - 105	Pole	TP25.031x24.02x0.25	Pole	22.4%	Pass
105 - 100	Pole	TP26.041x25.031x0.25	Pole	35.1%	Pass
100 - 99.25	Pole	TP26.192x26.041x0.25	Pole	36.7%	Pass
99.25 - 99	Pole + Reinf.	TP26.243x26.192x0.3563	Reinf. 14 Tension Rupture	33.5%	Pass
99 - 94	Pole + Reinf.	TP27.253x26.243x0.3563	Reinf. 14 Tension Rupture	46.1%	Pass
94 - 90.08	Pole + Reinf.	TP28.045x27.253x0.3125	Pole	56.1%	Pass
90.08 - 89.83	Pole + Reinf.	TP28.096x28.045x0.5125	Reinf. 11 Tension Rupture	46.8%	Pass
89.83 - 89.5	Pole + Reinf.	TP28.162x28.096x0.5125	Reinf. 11 Tension Rupture	47.5%	Pass
89.5 - 89.25	Pole + Reinf.	TP28.213x28.162x0.725	Reinf. 15 Tension Rupture	36.7%	Pass
89.25 - 84.25	Pole + Reinf.	TP29.223x28.213x0.7	Reinf. 15 Tension Rupture	45.1%	Pass
84.25 - 81.75	Pole + Reinf.	TP30.486x29.223x0.7	Reinf. 15 Tension Rupture	49.3%	Pass
81.75 - 77	Pole + Reinf.	TP30.188x29.228x0.8625	Reinf. 17 Tension Rupture	45.3%	Pass
77 - 76.75	Pole + Reinf.	TP30.239x30.188x0.8625	Reinf. 17 Tension Rupture	45.6%	Pass
76.75 - 76.5	Pole + Reinf.	TP30.289x30.239x0.9625	Reinf. 14 Tension Rupture	42.9%	Pass
76.5 - 75.5	Pole + Reinf.	TP30.491x30.289x0.9625	Reinf. 14 Tension Rupture	44.1%	Pass
75.5 - 75.25	Pole + Reinf.	TP30.542x30.491x0.7625	Reinf. 17 Tension Rupture	50.8%	Pass
75.25 - 74.5	Pole + Reinf.	TP30.693x30.542x0.7625	Reinf. 17 Tension Rupture	51.8%	Pass
74.5 - 74.25	Pole + Reinf.	TP30.744x30.693x0.8375	Reinf. 17 Tension Rupture	54.6%	Pass
74.25 - 72	Pole + Reinf.	TP31.198x30.744x0.825	Reinf. 17 Tension Rupture	57.6%	Pass
72 - 71.75	Pole + Reinf.	TP31.249x31.198x0.7625	Reinf. 17 Tension Rupture	55.2%	Pass
71.75 - 70.5	Pole + Reinf.	TP31.501x31.249x0.7625	Reinf. 17 Tension Rupture	56.8%	Pass
70.5 - 70.25	Pole + Reinf.	TP31.552x31.501x0.7875	Reinf. 17 Tension Rupture	56.9%	Pass
70.25 - 70	Pole + Reinf.	TP31.602x31.552x0.7875	Reinf. 17 Tension Rupture	57.2%	Pass
70 - 69.75	Pole + Reinf.	TP31.653x31.602x0.725	Reinf. 17 Tension Rupture	59.3%	Pass
69.75 - 69.5	Pole + Reinf.	TP31.703x31.653x0.875	Reinf. 4 Tension Rupture	50.4%	Pass
69.5 - 69.25	Pole + Reinf.	TP31.754x31.703x0.75	Reinf. 4 Tension Rupture	56.4%	Pass
69.25 - 64.25	Pole + Reinf.	TP32.764x31.754x0.7375	Reinf. 4 Tension Rupture	62.1%	Pass
64.25 - 59.25	Pole + Reinf.	TP33.774x32.764x0.7125	Reinf. 4 Tension Rupture	67.5%	Pass
59.25 - 56	Pole + Reinf.	TP34.431x33.774x0.7125	Reinf. 4 Tension Rupture	70.8%	Pass
56 - 55.75	Pole + Reinf.	TP34.481x34.431x0.8125	Reinf. 7 Tension Rupture	68.1%	Pass
55.75 - 55.5	Pole + Reinf.	TP34.532x34.481x0.8125	Reinf. 7 Tension Rupture	68.4%	Pass
55.5 - 55.25	Pole + Reinf.	TP34.582x34.532x0.8875	Reinf. 7 Tension Rupture	61.6%	Pass
55.25 - 54	Pole + Reinf.	TP34.835x34.582x0.875	Reinf. 7 Tension Rupture	62.8%	Pass
54 - 53.75	Pole + Reinf.	TP34.885x34.835x0.75	Reinf. 7 Tension Rupture	72.0%	Pass
53.75 - 53.5	Pole + Reinf.	TP34.936x34.885x0.7375	Reinf. 7 Tension Rupture	72.3%	Pass
53.5 - 53.25	Pole + Reinf.	TP34.986x34.936x0.6625	Reinf. 4 Tension Rupture	77.6%	Pass
53.25 - 53	Pole + Reinf.	TP35.037x34.986x0.6	Reinf. 12 Tension Rupture	80.3%	Pass
53 - 48	Pole + Reinf.	TP36.047x35.037x0.5875	Reinf. 12 Tension Rupture	85.6%	Pass
48 - 44.5	Pole + Reinf.	TP37.714x36.047x0.5875	Reinf. 12 Tension Rupture	89.1%	Pass
44.5 - 38.75	Pole + Reinf.	TP37.291x36.129x0.6625	Reinf. 4 Tension Rupture	87.3%	Pass
38.75 - 34.75	Pole + Reinf.	TP38.099x37.291x0.6625	Reinf. 4 Tension Rupture	90.4%	Pass
34.75 - 34.5	Pole + Reinf.	TP38.15x38.099x0.825	Reinf. 3 Tension Rupture	72.5%	Pass
34.5 - 33.75	Pole + Reinf.	TP38.301x38.15x0.825	Reinf. 3 Tension Rupture	72.9%	Pass
33.75 - 33.5	Pole + Reinf.	TP38.352x38.301x0.625	Reinf. 6 Tension Rupture	89.8%	Pass
33.5 - 28.5	Pole + Reinf.	TP39.362x38.352x0.6125	Reinf. 6 Tension Rupture	93.2%	Pass
28.5 - 24	Pole + Reinf.	TP40.271x39.362x0.6625	Reinf. 3 Tension Rupture	96.2%	Pass
24 - 23.75	Pole + Reinf.	TP40.322x40.271x0.7	Reinf. 3 Tension Rupture	92.0%	Pass
23.75 - 18.75	Pole + Reinf.	TP41.332x40.322x0.6875	Reinf. 3 Tension Rupture	95.1%	Pass
18.75 - 14.25	Pole + Reinf.	TP42.241x41.332x0.675	Reinf. 3 Tension Rupture	97.7%	Pass
14.25 - 14	Pole + Reinf.	TP42.291x42.241x0.775	Reinf. 3 Tension Rupture	85.0%	Pass
14 - 9	Pole + Reinf.	TP43.302x42.291x0.7625	Reinf. 3 Tension Rupture	87.6%	Pass
9 - 5	Pole + Reinf.	TP44.11x43.302x0.75	Reinf. 3 Tension Rupture	89.5%	Pass
5 - 4.75	Pole + Reinf.	TP44.16x44.11x0.9125	Reinf. 3 Tension Rupture	81.1%	Pass
4.75 - 4.5	Pole + Reinf.	TP44.211x44.16x0.875	Reinf. 1 Compression	81.8%	Pass
4.5 - 0	Pole + Reinf.	TP45.12x44.211x0.85	Reinf. 1 Compression	83.6%	Pass
				Summary	
			Pole	72.1%	Pass
			Reinforcement	97.7%	Pass
			Overall	97.7%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in ⁴)			Area (in ²)			% Capacity*																					
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	R21
	120 - 115	1213	n/a	1213	18.30	n/a	18.30	5.9%																				
115 - 110	1382	n/a	1382	19.11	n/a	19.11	14.1%																					
110 - 105	1566	n/a	1566	19.92	n/a	19.92	22.4%																					
105 - 100	1765	n/a	1765	20.73	n/a	20.73	35.1%																					
100 - 99.25	1796	n/a	1796	20.85	n/a	20.85	36.7%																					
99.25 - 99	1892	740	2633	20.89	10.00	30.89	28.8%														33.5%		33.5%					
99 - 94	2116	800	2916	21.71	10.00	31.71	39.9%														46.1%		46.1%					
94 - 90.08	2439	919	2958	22.34	10.00	32.34	56.1%														56.0%		56.0%					
90.08 - 89.83	2235	2180	4415	22.38	24.00	46.38	32.7%											46.8%			45.0%		39.2%		45.1%			
89.83 - 89.5	2251	2190	4441	22.44	24.00	46.44	33.2%											47.5%			45.0%		39.7%		45.8%			
89.5 - 89.25	2276	2952	6228	22.48	36.00	58.48	24.8%											30.0%			35.9%		36.6%		36.7%		31.7%	
89.25 - 84.25	2531	4227	6758	23.29	36.00	59.29	30.9%											36.8%			44.1%		44.5%		45.1%		39.0%	
84.25 - 81.75	2665	4368	7033	23.70	36.00	59.70	34.1%											40.3%			48.2%		49.3%		42.7%			
81.75 - 77	3434	5537	8970	30.02	51.00	81.02	28.9%											37.4%			43.6%		45.2%		40.3%		38.2%	45.3%
77 - 76.75	3451	5554	9005	30.07	51.00	81.07	29.1%											37.6%			43.9%		45.5%		40.6%		38.5%	45.0%
76.75 - 76.5	3483	6565	10048	30.12	56.00	86.12	26.8%											38.2%			36.8%		42.9%		38.6%		38.7%	40.5%
76.5 - 75.5	3554	6648	10202	30.32	56.00	86.32	27.6%											37.2%			37.8%		44.1%		39.7%		39.8%	41.6%
75.5 - 75.25	3556	4807	8363	30.37	46.00	76.37	33.0%											45.6%			46.2%		45.0%		50.8%		48.8%	44.3%
75.25 - 74.5	3609	4852	8461	30.53	46.00	76.53	33.7%											46.4%			47.1%		45.9%		51.8%		49.5%	45.2%
74.5 - 74.25	3738	5532	9270	30.58	41.00	71.58	34.3%											50.9%			50.4%				54.6%		49.5%	48.2%
74.25 - 72	3906	5690	9596	31.03	41.00	72.03	36.4%											53.7%			53.2%				57.6%		52.3%	50.9%
72 - 71.75	3808	5092	8900	31.09	49.13	80.21	35.7%														37.3%		47.8%		49.1%		55.2%	53.0%
71.75 - 70.5	3902	5171	9072	31.34	49.13	80.46	36.9%														38.4%		48.2%		50.5%		56.8%	54.5%
70.5 - 70.25	3925	5537	9462	31.39	53.63	85.01	36.0%														41.6%		38.7%		47.1%		48.4%	56.9%
70.25 - 70	3944	5554	9498	31.44	53.63	85.07	36.2%														41.9%		38.9%		47.3%		48.7%	57.2%
70 - 69.75	3961	4823	8785	31.49	48.63	80.12	39.8%														50.8%		38.9%		52.4%		53.0%	59.3%
69.75 - 69.5	4028	6551	10579	31.54	53.63	85.17	34.4%																					49.1%
69.5 - 69.25	4004	5187	9190	31.59	41.63	73.22	38.2%														50.4%		43.2%		38.4%		49.1%	41.2%
69.25 - 64.25	4401	5507	9909	32.61	41.63	74.23	43.3%														56.4%		55.9%		43.6%		53.5%	
64.25 - 59.25	4825	5838	10663	33.62	41.63	75.25	47.7%														62.1%		61.7%		48.2%		59.0%	
59.25 - 56	5114	6058	11172	34.28	41.63	75.91	50.4%														67.5%		67.1%		52.6%		64.3%	
56 - 55.75	5209	7530	12738	34.33	55.13	89.46	46.4%														70.8%		70.6%		55.3%		67.6%	
55.75 - 55.5	5232	7551	12782	34.38	55.13	89.51	46.6%														67.3%		68.1%		45.9%		57.9%	
55.5 - 55.25	5199	8671	13870	34.43	59.63	94.06	42.4%														68.4%		68.4%		46.1%		58.1%	
55.25 - 54	5314	8793	14107	34.69	59.63	94.31	43.3%														58.2%		61.6%		46.0%		56.2%	
54 - 53.75	5328	6906	12234	34.74	50.63	85.36	50.3%														59.3%		62.8%		46.9%		57.2%	
53.75 - 53.5	5351	6925	12276	34.79	50.63	85.41	50.5%														64.4%		72.0%		52.9%		64.1%	
53.5 - 53.25	5418	5610	11027	34.84	46.13	80.97	58.0%														64.6%		64.6%		53.1%		62.3%	
53.25 - 53	5388	4730	10118	34.89	38.00	72.89	61.2%														77.8%		55.3%				69.7%	
53 - 48	5872	4982	10854	35.91	38.00	73.91	66.0%														78.0%						80.3%	
48 - 44.5	6228	5167	11395	36.62	38.00	74.62	69.2%														82.8%						85.6%	
44.5 - 38.75	7765	5730	13494	44.51	31.68	76.19	61.0%														86.0%						89.1%	
38.75 - 34.25	8286	5977	14263	45.49	31.68	77.17	63.7%														87.3%						90.4%	
34.75 - 34.5	8319	9340	17659	45.55	51.68	97.23	51.1%														81.5%						84.3%	
34.5 - 33.75	8419	9410	17829	45.73	51.68	97.41	51.5%														72.5%		72.9%		71.8%		71.9%	
33.75 - 33.5	8462	5245	13707	45.79	31.68	77.47	68.8%														89.6%						89.8%	
33.5 - 28.5	9155	5523	14678	47.01	31.68	78.69	72.1%														93.2%						93.2%	
28.5 - 24	9807	7211	17019	48.11	31.68	79.79	67.4%														96.2%						96.0%	
24 - 23.75	9844	8023	17867	48.17	36.52	84.69	64.4%														87.7%		87.7%		92.0%		80.7%	
23.75 - 18.75	10609	8417	19026	49.38	36.52	85.90	67.3%														90.6%		90.6%		95.1%		82.4%	
18.75 - 14.25	11331	8779	20110	50.48	36.52	87.00	69.8%														92.9%		92.9%		97.7%		84.3%	
14.25 - 14	11366	11460	22827	50.54	48.20	98.74	62.9%														83.3%		83.3%		85.0%		78.4%	
14 - 9	12208	11986	24194	51.76	48.20	99.96	65.5%														85.7%		85.7%		87.5%		80.7%	
9 - 5	12911	12415	25326	52.73	48.20	100.93	67.6%														87.6%		87.6%		89.4%		82.4%	
5 - 4.75	13162	17431	30593	52.80	61.25	114.04	59.2%														88.3%		88.3%		81.1%		76.4%	
4.75 - 4.5	13034	16199	29233	52.86	56.25	109.10	61.1%														81.8%		81.8%		71.5%		80.1%	
4.5 - 0	13862	16787	30649	53.95	56.25	110.20	63.4%														83.4%		83.4%		73.4%		82.1%	

Note: Section capacity checked using 3 degree increments.
Rating per TIA-222-H Section 15.5.

Monopole Base Plate Connection

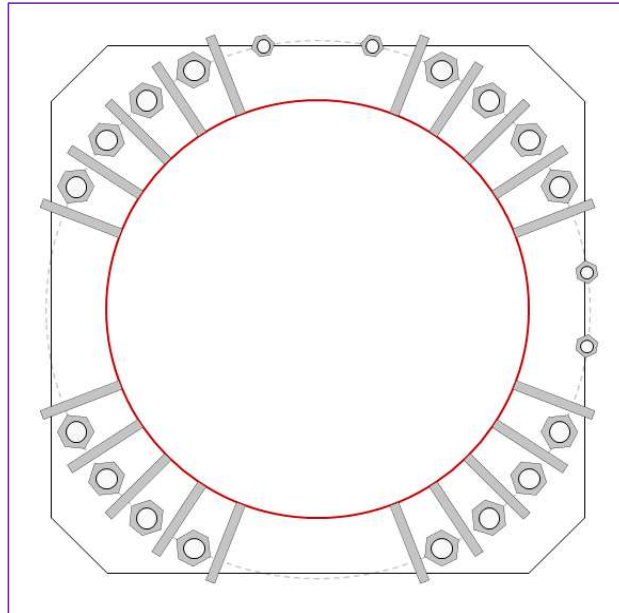


Site Info	
BU #	876320
Site Name	528 Wheelers Farm Rd
Order #	

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	See Custom Sheet
l_{ar} (in)	See Custom Sheet

Applied Loads	
Moment (kip-ft)	4156.51
Axial Force (kips)	65.55
Shear Force (kips)	49.02

*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results
-----------------------	------------------

Anchor Rod Data
GROUP 1: (16) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 58" BC <i>Anchor Spacing: 6 in</i>
GROUP 2: (4) 1-3/8" ϕ bolts (R71 150ksi 1-3/8" N; $F_y=120$ ksi, $F_u=125$ ksi) on 58" BC <i>pos. (deg): 7.9, 78.4, 101.6, 352.1</i>
Base Plate Data
57" W x 3.25" Plate (A572-50; $F_y=50$ ksi, $F_u=65$ ksi); Clip: 6 in
Stiffener Data
(20) 18"H x 9"W x 1"T, Notch: 0.75" plate: $F_y= 50$ ksi ; weld: $F_y= 80$ ksi horiz. weld: 0.5" groove, 45° dbl bevel, 0.5" fillet vert. weld: 0.375" fillet
Pole Data
45.12" x 0.375" 12-sided pole (A607-60; $F_y=60$ ksi, $F_u=75$ ksi)

Anchor Rod Summary			<i>(units of kips, kip-in)</i>
GROUP 1:			
$P_{u_t} = 205.77$	$\phi P_{n_t} = 243.75$	Stress Rating	
$V_u = 3.06$	$\phi V_n = 149.1$	80.4%	
$M_u = n/a$	$\phi M_n = n/a$	Pass	
GROUP 2:			
$P_{u_t} = 68.51$	$\phi P_{n_t} = 108.75$	Stress Rating	
$V_u = 0$	$\phi V_n = 69.6$	60.0%	
$M_u = n/a$	$\phi M_n = n/a$	Pass	
Base Plate Summary			
Max Stress (ksi):	4.09		(Shear)
Allowable Stress (ksi):	29.25		
Stress Rating:	13.3%	Pass	
Stiffener Summary			
Horizontal Weld:	41.6%	Pass	
Vertical Weld:	53.9%	Pass	
Plate Flexure+Shear:	21.8%	Pass	
Plate Tension+Shear:	43.3%	Pass	
Plate Compression:	60.1%	Pass	
Pole Summary			
Punching Shear:	23.4%	Pass	

Elevation (ft) 0 (Base)

note: Bending interaction not considered when Grout Considered = "Yes"

Bolt Group	Resist Axial	Resist Shear	Induce Plate Bending	Grout Considered	Apply at BARB Elevation	BARB CL Elevation (ft)
1	Yes	Yes	Yes	No	No	
2	No	No	No	No	No	

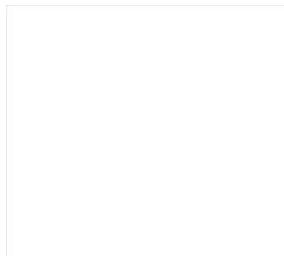
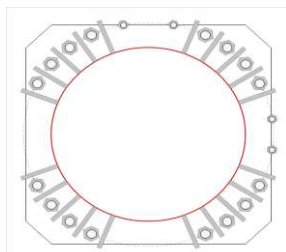
Custom Bolt Connection

Bolt	Bolt Group ID	Location (deg)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, n:	l _r (in):	Thread Type	Area Override, in ²	Tension Only
1	1	27.1866826	2.25	A615-75	58	0.5	2	N-Included		No
2	1	39.0622275	2.25	A615-75	58	0.5	2	N-Included		No
3	1	50.9377725	2.25	A615-75	58	0.5	2	N-Included		No
4	1	62.8133174	2.25	A615-75	58	0.5	2	N-Included		No
5	1	117.186683	2.25	A615-75	58	0.5	2	N-Included		No
6	1	129.062228	2.25	A615-75	58	0.5	2	N-Included		No
7	1	140.937772	2.25	A615-75	58	0.5	2	N-Included		No
8	1	152.813317	2.25	A615-75	58	0.5	2	N-Included		No
9	1	207.186683	2.25	A615-75	58	0.5	2	N-Included		No
10	1	219.062228	2.25	A615-75	58	0.5	2	N-Included		No
11	1	230.937772	2.25	A615-75	58	0.5	2	N-Included		No
12	1	242.813317	2.25	A615-75	58	0.5	2	N-Included		No
13	1	297.186683	2.25	A615-75	58	0.5	2	N-Included		No
14	1	309.062228	2.25	A615-75	58	0.5	2	N-Included		No
15	1	320.937772	2.25	A615-75	58	0.5	2	N-Included		No
16	1	332.813317	2.25	A615-75	58	0.5	2	N-Included		No
17	2	7.9	1.375	R71 150ksi 1-3/8"	58	0.5	0.25	N-Included		No
18	2	78.4	1.375	R71 150ksi 1-3/8"	58	0.5	0.25	N-Included		No
19	2	101.6	1.375	R71 150ksi 1-3/8"	58	0.5	0.25	N-Included		No
20	2	352.1	1.375	R71 150ksi 1-3/8"	58	0.5	0.25	N-Included		No

Custom Stiffener Connection

Stiffener	Stiffener Group ID	Location (deg)	Width (in)	Height (in)	Thickness (in)	H. Notch (in)	V. Notch (in)	Grade (ksi)	Weld Type	Groove Depth (in)	Groove Angle (deg)	H. Fillet Weld Size (in)	V. Fillet Weld Size (in)	Weld Strength (ksi)
1	1	21.2449102	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
2	1	33.1244551	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
3	1	45	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
4	1	56.8755449	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
5	1	68.7510898	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
6	1	111.24891	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
7	1	123.124455	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
8	1	135	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
9	1	146.875545	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
10	1	158.75109	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
11	1	201.24891	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
12	1	213.124455	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
13	1	225	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
14	1	236.875545	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
15	1	248.75109	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
16	1	291.24891	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
17	1	303.124455	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
18	1	315	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
19	1	326.875545	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80
20	1	338.75109	9	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.375	80

Plot Graphic



=====
LPile for Windows, Version 2016-09.010

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method
© 1985-2016 by Ensoft, Inc.
All Rights Reserved

=====
This copy of LPile is being used by:

Rsoni
Crown Castle

Serial Number of Security Device: 295890788

This copy of LPile is licensed for exclusive use by:

Crown Castle, Canonsburg, PA, Ho

Use of this program by any entity other than Crown Castle, Canonsburg, PA, Ho
is a violation of the software license agreement.

Files Used for Analysis

Path to file locations:
\Users\Rsoni\Desktop\L-Pile runs\876320\

Name of input data file:
876320.lp9d

Name of output report file:
876320.lp9o

Name of plot output file:
876320.lp9p

Name of runtime message file:
876320.lp9r

Date and Time of Analysis

Date: May 28, 2021

Time: 10:17:25

Problem Title

876320

1962912

Crown Castle

Rohit Soni, P.E.

Drilled pier Analysis

Program Options and Settings

Computational Options:

- Use unfactored loads in computations (conventional analysis)

Engineering Units Used for Data Input and Computations:

- US Customary System Units (pounds, feet, inches)

Analysis Control Options:

- Maximum number of iterations allowed = 500
- Deflection tolerance for convergence = 1.0000E-04 in
- Maximum allowable deflection = 100.0000 in
- Number of pile increments = 234

Loading Type and Number of Cycles of Loading:

- Static loading specified
- Use of p-y modification factors for p-y curves not selected

- No distributed lateral loads are entered
- Loading by lateral soil movements acting on pile not selected
- Input of shear resistance at the pile tip not selected
- Computation of pile-head foundation stiffness matrix not selected
- Push-over analysis of pile not selected
- Buckling analysis of pile not selected

Output Options:

- Output files use decimal points to denote decimal symbols.
- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (nodal spacing of output points) = 1
- No p-y curves to be computed and reported for user-specified depths
- Print using wide report formats

 Pile Structural Properties and Geometry

Number of pile sections defined = 1
 Total length of pile = 19.500 ft
 Depth of ground surface below top of pile = 0.5000 ft

Pile diameters used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over the length of the pile. A summary of values of pile diameter vs. depth follows.

Point No.	Depth Below Pile Head feet	Pile Diameter inches
1	0.000	84.0000
2	19.500	84.0000

Input Structural Properties for Pile Sections:

Pile Section No. 1:

Section 1 is a round drilled shaft, bored pile, or CIDH pile
 Length of section = 19.500000 ft
 Shaft Diameter = 84.000000 in
 Shear capacity of section = 0.0000 lbs

Ground Slope and Pile Batter Angles

Ground Slope Angle	=	0.000 degrees
	=	0.000 radians
Pile Batter Angle	=	0.000 degrees
	=	0.000 radians

Soil and Rock Layering Information

The soil profile is modelled using 7 layers

Layer 1 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	0.500000 ft
Distance from top of pile to bottom of layer	=	2.500000 ft
Effective unit weight at top of layer	=	100.000000 pcf
Effective unit weight at bottom of layer	=	100.000000 pcf
Undrained cohesion at top of layer	=	1.000000 psf
Undrained cohesion at bottom of layer	=	1.000000 psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000

NOTE: Default values for Epsilon-50 will be computed for this layer.

Layer 2 is soft clay, p-y criteria by Matlock, 1970

Distance from top of pile to top of layer	=	2.500000 ft
Distance from top of pile to bottom of layer	=	4.000000 ft
Effective unit weight at top of layer	=	135.000000 pcf
Effective unit weight at bottom of layer	=	135.000000 pcf
Undrained cohesion at top of layer	=	1.000000 psf
Undrained cohesion at bottom of layer	=	1.000000 psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000

NOTE: Default values for Epsilon-50 will be computed for this layer.

Layer 3 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	4.000000 ft
-------------------------------------------	---	-------------

Distance from top of pile to bottom of layer	=	6.500000 ft
Effective unit weight at top of layer	=	135.000000 pcf
Effective unit weight at bottom of layer	=	135.000000 pcf
Friction angle at top of layer	=	42.000000 deg.
Friction angle at bottom of layer	=	42.000000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Default values for subgrade k will be computed for this layer.

Layer 4 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	6.500000 ft
Distance from top of pile to bottom of layer	=	7.500000 ft
Effective unit weight at top of layer	=	135.000000 pcf
Effective unit weight at bottom of layer	=	135.000000 pcf
Friction angle at top of layer	=	42.000000 deg.
Friction angle at bottom of layer	=	42.000000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Default values for subgrade k will be computed for this layer.

Layer 5 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	7.500000 ft
Distance from top of pile to bottom of layer	=	14.000000 ft
Effective unit weight at top of layer	=	72.600000 pcf
Effective unit weight at bottom of layer	=	72.600000 pcf
Friction angle at top of layer	=	42.000000 deg.
Friction angle at bottom of layer	=	42.000000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Default values for subgrade k will be computed for this layer.

Layer 6 is stiff clay with water-induced erosion

Distance from top of pile to top of layer	=	14.000000 ft
Distance from top of pile to bottom of layer	=	14.500000 ft
Effective unit weight at top of layer	=	77.600000 pcf
Effective unit weight at bottom of layer	=	77.600000 pcf
Undrained cohesion at top of layer	=	8000. psf
Undrained cohesion at bottom of layer	=	8000. psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Default values for Epsilon-50 will be computed for this layer.

NOTE: Default values for subgrade k will be computed for this layer.

Layer 7 is stiff clay with water-induced erosion

Distance from top of pile to top of layer = 14.500000 ft
 Distance from top of pile to bottom of layer = 19.500000 ft
 Effective unit weight at top of layer = 77.600000 pcf
 Effective unit weight at bottom of layer = 77.600000 pcf
 Undrained cohesion at top of layer = 8000. psf
 Undrained cohesion at bottom of layer = 8000. psf
 Epsilon-50 at top of layer = 0.0000
 Epsilon-50 at bottom of layer = 0.0000
 Subgrade k at top of layer = 0.0000 pci
 Subgrade k at bottom of layer = 0.0000 pci

NOTE: Default values for Epsilon-50 will be computed for this layer.

NOTE: Default values for subgrade k will be computed for this layer.

(Depth of the lowest soil layer extends 0.000 ft below the pile tip)

 Summary of Input Soil Properties

Layer E50 Layer or Num. krm	Soil Type Name (p-y kpy Curve Type) pci	Layer Depth ft	Effective Unit Wt. pcf	Undrained Cohesion psf	Angle of Friction deg.
1 default	Soft -- Clay	0.5000	100.0000	1.0000	--
2 default	Soft -- Clay	2.5000	135.0000	1.0000	--
3 --	Sand default (Reese, et al.)	4.0000	135.0000	--	42.0000
4 --	Sand default	6.5000	135.0000	--	42.0000

--	(Reese, et al.)	7.5000	135.0000	--	42.0000
--	default				
5	Sand	7.5000	72.6000	--	42.0000
--	default				
--	(Reese, et al.)	14.0000	72.6000	--	42.0000
--	default				
6	Stiff Clay	14.0000	77.6000	8000.	--
default	default				
	with Free Water	14.5000	77.6000	8000.	--
default	default				
7	Stiff Clay	14.5000	77.6000	8000.	--
default	default				
	with Free Water	19.5000	77.6000	8000.	--
default	default				

 Static Loading Type

Static loading criteria were used when computing p-y curves for all analyses.

 Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 1

Load Compute No.	Load Top y Type vs. Pile Length	Condition 1	Condition 2	Axial Thrust Force, lbs
1	1	V = 48990. lbs	M = 49875480. in-lbs	65570.
	No			

V = shear force applied normal to pile axis

M = bending moment applied to pile head

y = lateral deflection normal to pile axis

S = pile slope relative to original pile batter angle

R = rotational stiffness applied to pile head

Values of top y vs. pile lengths can be computed only for load types with specified shear loading (Load Types 1, 2, and 3).

Thrust force is assumed to be acting axially for all pile batter angles.

 Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:

Dimensions and Properties of Drilled Shaft (Bored Pile):

Length of Section = 19.500000 ft
 Shaft Diameter = 84.000000 in
 Concrete Cover Thickness = 4.000000 in
 Number of Reinforcing Bars = 32 bars
 Yield Stress of Reinforcing Bars = 60000. psi
 Modulus of Elasticity of Reinforcing Bars = 29000000. psi
 Gross Area of Shaft = 5542. sq. in.
 Total Area of Reinforcing Steel = 49.920000 sq. in.
 Area Ratio of Steel Reinforcement = 0.90 percent
 Edge-to-Edge Bar Spacing = 5.901098 in
 Maximum Concrete Aggregate Size = 0.750000 in
 Ratio of Bar Spacing to Aggregate Size = 7.87
 Offset of Center of Rebar Cage from Center of Pile = 0.0000 in

Axial Structural Capacities:

Nom. Axial Structural Capacity = $0.85 F_c A_c + F_y A_s$ = 16999.416 kips
 Tensile Load for Cracking of Concrete = -2156.041 kips
 Nominal Axial Tensile Capacity = -2995.200 kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
1	1.410000	1.560000	37.295000	0.000000
2	1.410000	1.560000	36.578387	7.275894
3	1.410000	1.560000	34.456087	14.272179
4	1.410000	1.560000	31.009659	20.719992
5	1.410000	1.560000	26.371547	26.371547
6	1.410000	1.560000	20.719992	31.009659
7	1.410000	1.560000	14.272179	34.456087
8	1.410000	1.560000	7.275894	36.578387
9	1.410000	1.560000	0.000000	37.295000

10	1.410000	1.560000	-7.275894	36.578387
11	1.410000	1.560000	-14.272179	34.456087
12	1.410000	1.560000	-20.719992	31.009659
13	1.410000	1.560000	-26.371547	26.371547
14	1.410000	1.560000	-31.009659	20.719992
15	1.410000	1.560000	-34.456087	14.272179
16	1.410000	1.560000	-36.578387	7.275894
17	1.410000	1.560000	-37.295000	0.000000
18	1.410000	1.560000	-36.578387	-7.275894
19	1.410000	1.560000	-34.456087	-14.272179
20	1.410000	1.560000	-31.009659	-20.719992
21	1.410000	1.560000	-26.371547	-26.371547
22	1.410000	1.560000	-20.719992	-31.009659
23	1.410000	1.560000	-14.272179	-34.456087
24	1.410000	1.560000	-7.275894	-36.578387
25	1.410000	1.560000	0.000000	-37.295000
26	1.410000	1.560000	7.275894	-36.578387
27	1.410000	1.560000	14.272179	-34.456087
28	1.410000	1.560000	20.719992	-31.009659
29	1.410000	1.560000	26.371547	-26.371547
30	1.410000	1.560000	31.009659	-20.719992
31	1.410000	1.560000	34.456087	-14.272179
32	1.410000	1.560000	36.578387	-7.275894

NOTE: The positions of the above rebars were computed by LPILE

Minimum spacing between any two bars not equal to zero = 5.901 inches between bars 1 and 32.

Ratio of bar spacing to maximum aggregate size = 7.87

Concrete Properties:

Compressive Strength of Concrete	=	3000. psi
Modulus of Elasticity of Concrete	=	3122019. psi
Modulus of Rupture of Concrete	=	-410.791918 psi
Compression Strain at Peak Stress	=	0.001634
Tensile Strain at Fracture of Concrete	=	-0.0001160
Maximum Coarse Aggregate Size	=	0.750000 in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 1

Number	Axial Thrust Force
	kips
-----	-----
1	65.570

Definitions of Run Messages and Notes:

- C = concrete in section has cracked in tension.
- Y = stress in reinforcing steel has reached yield stress.
- T = ACI 318 criteria for tension-controlled section met, tensile strain in reinforcement exceeds 0.005 while simultaneously compressive strain in concrete more than 0.003. See ACI 318, Section 10.3.4.
- Z = depth of tensile zone in concrete section is less than 10 percent of section depth.

Bending Stiffness (EI) = Computed Bending Moment / Curvature.
 Position of neutral axis is measured from edge of compression side of pile.
 Compressive stresses and strains are positive in sign.
 Tensile stresses and strains are negative in sign.

Axial Thrust Force = 65.570 kips

Bending Max Conc Curvature Stress rad/in. ksi	Bending Max Steel Moment Stress in-kip ksi	Bending Run Stiffness Msg kip-in ²	Depth to N Axis in	Max Comp Strain in/in	Max Tens Strain in/in
3.12500E-07	3072.	9829925998.	51.7372216	0.00001617	-0.00001008
0.0586128	0.4650623				
6.25000E-07	6130.	9807394505.	46.8839364	0.00002930	-0.00002320
0.1057146	0.8421588				
9.37500E-07	9172.	9783821682.	45.2663327	0.00004244	-0.00003631
0.1524368	1.2192597				
0.00000125	12200.	9759982913.	44.4575983	0.00005557	-0.00004943
0.1987790	1.5963629				
0.00000156	15213.	9736037212.	43.9724040	0.00006871	-0.00006254
0.2447413	1.9734683				
0.00000188	18210.	9712037917.	43.6489773	0.00008184	-0.00007566
0.2903237	2.3505756				
0.00000219	21193.	9688007966.	43.4179888	0.00009498	-0.00008877
0.3355260	2.7276849				
0.00000250	24160.	9663958856.	43.2447745	0.0001081	-0.0001019
0.3803484	3.1047962				
0.00000281	27112.	9639896959.	43.1100761	0.0001212	-0.0001150
0.4247908	3.4819093				
0.00000313	27112.	8675907263.	24.1658307	0.00007552	-0.0001870
0.2663644	-5.3844091	C			
0.00000344	27112.	7887188421.	23.8648968	0.00008204	-0.0002067

0.2887090	-5.9528493	C				
0.00000375	27112.		7229922720.	23.6077913	0.00008853	-0.0002265
0.3108793	-6.5219777	C				
0.00000406	27112.		6673774818.	23.3912219	0.00009503	-0.0002462
0.3329725	-7.0909904	C				
0.00000438	27112.		6197076617.	23.2065050	0.0001015	-0.0002660
0.3549884	-7.6598872	C				
0.00000469	27112.		5783938176.	23.0451309	0.0001080	-0.0002857
0.3768923	-8.2289588	C				
0.00000500	27112.		5422442040.	22.9009701	0.0001145	-0.0003055
0.3986545	-8.7984593	C				
0.00000531	27112.		5103474861.	22.7745459	0.0001210	-0.0003253
0.4203401	-9.3678403	C				
0.00000563	27112.		4819948480.	22.6629047	0.0001275	-0.0003450
0.4419490	-9.9371012	C				
0.00000594	27112.		4566266981.	22.5637145	0.0001340	-0.0003648
0.4634811	-10.5062416	C				
0.00000625	27112.		4337953632.	22.4751099	0.0001405	-0.0003845
0.4849361	-11.0752613	C				
0.00000656	27112.		4131384411.	22.3955807	0.0001470	-0.0004043
0.5063140	-11.6441598	C				
0.00000688	27112.		3943594211.	22.3238914	0.0001535	-0.0004240
0.5276147	-12.2129366	C				
0.00000719	27112.		3772133593.	22.2589801	0.0001600	-0.0004438
0.5488369	-12.7816001	C				
0.00000750	27112.		3614961360.	22.1975961	0.0001665	-0.0004635
0.5699211	-13.3506728	C				
0.00000781	27112.		3470362905.	22.1416816	0.0001730	-0.0004833
0.5909285	-13.9196190	C				
0.00000813	27112.		3336887409.	22.0906074	0.0001795	-0.0005030
0.6118591	-14.4884381	C				
0.00000844	27112.		3213298986.	22.0438375	0.0001860	-0.0005228
0.6327127	-15.0571297	C				
0.00000875	27112.		3098538308.	22.0009125	0.0001925	-0.0005425
0.6534892	-15.6256934	C				
0.00000906	27112.		2991692160.	21.9614363	0.0001990	-0.0005622
0.6741884	-16.1941287	C				
0.00000938	27112.		2891969088.	21.9250657	0.0002055	-0.0005820
0.6948103	-16.7624352	C				
0.00000969	27112.		2798679762.	21.8915018	0.0002121	-0.0006017
0.7153546	-17.3306124	C				
0.00001000	27112.		2711221020.	21.8604831	0.0002186	-0.0006214
0.7358212	-17.8986599	C				
0.00001031	27112.		2629062807.	21.8317797	0.0002251	-0.0006411
0.7562100	-18.4665771	C				
0.00001063	27112.		2551737430.	21.8051888	0.0002317	-0.0006608
0.7765208	-19.0343637	C				
0.00001094	27112.		2478830647.	21.7805308	0.0002382	-0.0006805
0.7967535	-19.6020191	C				
0.00001125	27112.		2409974240.	21.7576461	0.0002448	-0.0007002

0.8169080	-20.1695429	C				
0.00001156	27112.	2344839801.	21.7363924	0.0002513	-0.0007199	
0.8369841	-20.7369346	C				
0.00001188	27112.	2283133490.	21.7166421	0.0002579	-0.0007396	
0.8569816	-21.3041938	C				
0.00001219	27112.	2224591606.	21.6982812	0.0002644	-0.0007593	
0.8769003	-21.8713203	C				
0.00001281	27413.	2139535776.	21.6653256	0.0002776	-0.0007987	
0.9165013	-23.0051712	C				
0.00001344	28667.	2133335130.	21.6368161	0.0002907	-0.0008380	
0.9557857	-24.1384844	C				
0.00001406	29919.	2127585992.	21.6121698	0.0003039	-0.0008773	
0.9947523	-25.2712557	C				
0.00001469	31170.	2122230115.	21.5909028	0.0003171	-0.0009166	
1.0334000	-26.4034810	C				
0.00001531	32420.	2117218753.	21.5726105	0.0003303	-0.0009559	
1.0717274	-27.5351564	C				
0.00001594	33668.	2112510700.	21.5569517	0.0003436	-0.0009952	
1.1097333	-28.6662780	C				
0.00001656	34915.	2108071278.	21.5436372	0.0003568	-0.0010344	
1.1474165	-29.7968408	C				
0.00001719	36160.	2103870517.	21.5324196	0.0003701	-0.0010737	
1.1847758	-30.9268411	C				
0.00001781	37404.	2099882761.	21.5230865	0.0003834	-0.0011129	
1.2218098	-32.0562745	C				
0.00001844	38647.	2096085827.	21.5154543	0.0003967	-0.0011521	
1.2585172	-33.1851368	C				
0.00001906	39888.	2092460436.	21.5093639	0.0004100	-0.0011912	
1.2948968	-34.3134236	C				
0.00001969	41127.	2088989748.	21.5046761	0.0004234	-0.0012304	
1.3309471	-35.4411302	C				
0.00002031	42365.	2085658990.	21.5012692	0.0004367	-0.0012695	
1.3666669	-36.5682523	C				
0.00002094	43601.	2082455149.	21.4990362	0.0004501	-0.0013086	
1.4020548	-37.6947852	C				
0.00002156	44836.	2079366711.	21.4978822	0.0004635	-0.0013477	
1.4371094	-38.8207242	C				
0.00002219	46070.	2076383456.	21.4977237	0.0004770	-0.0013868	
1.4718293	-39.9460646	C				
0.00002281	47302.	2073496276.	21.4984859	0.0004904	-0.0014258	
1.5062132	-41.0708016	C				
0.00002344	48532.	2070697030.	21.5001025	0.0005039	-0.0014648	
1.5402595	-42.1949303	C				
0.00002406	49761.	2067978416.	21.5025138	0.0005174	-0.0015038	
1.5739670	-43.3184458	C				
0.00002469	50988.	2065333865.	21.5056667	0.0005309	-0.0015428	
1.6073340	-44.4413430	C				
0.00002531	52214.	2062757451.	21.5095130	0.0005445	-0.0015818	
1.6403592	-45.5636168	C				
0.00002594	53438.	2060243815.	21.5140096	0.0005580	-0.0016207	

1.6730411	-46.6852621	C				
0.00002656	54660.	2057788093.	21.5191174	0.0005716	-0.0016596	
1.7053781	-47.8062737	C				
0.00002719	55881.	2055385866.	21.5248010	0.0005852	-0.0016985	
1.7373688	-48.9266461	C				
0.00002781	57100.	2053033105.	21.5310282	0.0005988	-0.0017374	
1.7690115	-50.0463740	C				
0.00002844	58318.	2050726127.	21.5377699	0.0006125	-0.0017763	
1.8003047	-51.1654518	C				
0.00002906	59533.	2048461564.	21.5449995	0.0006262	-0.0018151	
1.8312469	-52.2838741	C				
0.00002969	60748.	2046236323.	21.5526929	0.0006398	-0.0018539	
1.8618364	-53.4016350	C				
0.00003031	61960.	2044047561.	21.5608277	0.0006536	-0.0018927	
1.8920716	-54.5187290	C				
0.00003094	63171.	2041892659.	21.5693840	0.0006673	-0.0019314	
1.9219509	-55.6351500	C				
0.00003156	64380.	2039769199.	21.5783429	0.0006811	-0.0019702	
1.9514726	-56.7508922	C				
0.00003219	65588.	2037674945.	21.5876877	0.0006949	-0.0020089	
1.9806350	-57.8659496	C				
0.00003281	66793.	2035607826.	21.5974027	0.0007087	-0.0020476	
2.0094364	-58.9803159	C				
0.00003344	67997.	2033565920.	21.6074735	0.0007225	-0.0020863	
2.0378751	-60.0000000	CY				
0.00003406	69200.	2031547440.	21.6178870	0.0007364	-0.0021249	
2.0659493	-60.0000000	CY				
0.00003469	70400.	2029550821.	21.6286311	0.0007502	-0.0021635	
2.0936573	-60.0000000	CY				
0.00003531	71599.	2027574317.	21.6396946	0.0007642	-0.0022021	
2.1209972	-60.0000000	CY				
0.00003594	72772.	2024956335.	21.6486653	0.0007780	-0.0022408	
2.1477982	-60.0000000	CY				
0.00003656	73814.	2018843142.	21.6449566	0.0007914	-0.0022799	
2.1733124	-60.0000000	CY				
0.00003719	74741.	2009841642.	21.6305541	0.0008044	-0.0023194	
2.1976748	-60.0000000	CY				
0.00003969	77830.	1961063144.	21.5228976	0.0008542	-0.0024796	
2.2876086	-60.0000000	CY				
0.00004219	80213.	1901349147.	21.3644311	0.0009013	-0.0026424	
2.3676839	-60.0000000	CY				
0.00004469	82285.	1841349968.	21.1935338	0.0009471	-0.0028067	
2.4408514	-60.0000000	CY				
0.00004719	83949.	1779062011.	21.0043083	0.0009911	-0.0029726	
2.5069647	-60.0000000	CY				
0.00004969	85539.	1721535992.	20.8312999	0.0010351	-0.0031387	
2.5687242	-60.0000000	CY				
0.00005219	86723.	1661759980.	20.6361520	0.0010769	-0.0033068	
2.6237290	-60.0000000	CY				
0.00005469	87886.	1607051965.	20.4542878	0.0011186	-0.0034752	

2.6746814	-60.0000000	CY				
0.00005719	89014.	1556526097.	20.2857363	0.0011601	-0.0036437	
2.7217630	-60.0000000	CY				
0.00005969	89859.	1505498240.	20.1018427	0.0011998	-0.0038139	
2.7633558	-60.0000000	CY				
0.00006219	90635.	1457450973.	19.9282226	0.0012393	-0.0039845	
2.8013180	-60.0000000	CY				
0.00006469	91405.	1413022287.	19.7707833	0.0012789	-0.0041548	
2.8361168	-60.0000000	CY				
0.00006719	92162.	1371706399.	19.6199773	0.0013182	-0.0043255	
2.8673042	-60.0000000	CY				
0.00006969	92866.	1332611132.	19.4748196	0.0013572	-0.0044966	
2.8949554	-60.0000000	CY				
0.00007219	93362.	1293326549.	19.3153078	0.0013943	-0.0046694	
2.9183151	-60.0000000	CY				
0.00007469	93839.	1256423646.	19.1668694	0.0014315	-0.0048422	
2.9387565	-60.0000000	CY				
0.00007719	94312.	1221850157.	19.0302158	0.0014689	-0.0050149	
2.9563336	-60.0000000	CY				
0.00007969	94779.	1189385546.	18.9042773	0.0015064	-0.0051873	
2.9710063	-60.0000000	CY				
0.00008219	95234.	1158737002.	18.7792834	0.0015434	-0.0053603	
2.9825309	-60.0000000	CY				
0.00008469	95683.	1129839719.	18.6634321	0.0015806	-0.0055332	
2.9911813	-60.0000000	CY				
0.00008719	96113.	1102376646.	18.5540193	0.0016177	-0.0057061	
2.9969015	-60.0000000	CY				
0.00008969	96459.	1075506119.	18.4406760	0.0016539	-0.0058799	
2.9996624	-60.0000000	CY				
0.00009219	96725.	1049218506.	18.3238501	0.0016892	-0.0060545	
2.9964787	-60.0000000	CY				
0.00009469	96986.	1024277788.	18.2149824	0.0017247	-0.0062290	
2.9991102	-60.0000000	CY				
0.00009719	97244.	1000582413.	18.1134028	0.0017604	-0.0064034	
2.9990899	-60.0000000	CY				
0.00009969	97494.	977994654.	18.0150500	0.0017959	-0.0065779	
2.9975137	-60.0000000	CY				
0.0001022	97736.	956440751.	17.9183173	0.0018310	-0.0067527	
2.9996703	-60.0000000	CY				
0.0001047	97975.	935882716.	17.8278534	0.0018664	-0.0069274	
2.9973099	-60.0000000	CY				
0.0001072	98211.	916251785.	17.7431952	0.0019018	-0.0071019	
2.9975334	-60.0000000	CY				
0.0001097	98444.	897493484.	17.6636300	0.0019375	-0.0072763	
2.9996127	-60.0000000	CY				
0.0001122	98674.	879543911.	17.5890400	0.0019733	-0.0074505	
2.9979476	-60.0000000	CY				
0.0001147	98899.	862333078.	17.5188561	0.0020092	-0.0076246	
2.9962333	-60.0000000	CY				
0.0001172	99118.	845804869.	17.4519832	0.0020452	-0.0077986	

2.9988935	-60.000000	CY				
0.0001197	99306.	829706690.	17.3835106	0.0020806	-0.0079732	
2.9999674	-60.000000	CY				
0.0001222	99452.	813932070.	17.3122472	0.0021153	-0.0081484	
2.9958638	-60.000000	CY				
0.0001247	99587.	798693447.	17.2427512	0.0021500	-0.0083238	
2.9959986	60.000000	CY				
0.0001272	99703.	783908652.	17.1692571	0.0021837	-0.0085000	
2.9984233	60.000000	CY				
0.0001297	99816.	769668481.	17.0968512	0.0022172	-0.0086765	
2.9997311	60.000000	CY				
0.0001322	99928.	755956503.	17.0280365	0.0022509	-0.0088529	
2.9986231	60.000000	CY				
0.0001347	100038.	742740970.	16.9627573	0.0022847	-0.0090291	
2.9940061	60.000000	CY				
0.0001372	100147.	730001502.	16.9004091	0.0023185	-0.0092052	
2.9953840	60.000000	CY				
0.0001522	100783.	662228775.	16.5811374	0.0025234	-0.0102603	
2.9946634	60.000000	CY				
0.0001672	101385.	606414512.	16.3307655	0.0027303	-0.0113135	
2.9909727	60.000000	CY				
0.0001822	101854.	559060230.	16.0972461	0.0029327	-0.0123710	
2.9999969	60.000000	CY				
0.0001972	102086.	517711880.	15.8840196	0.0031321	-0.0134316	
2.9936788	60.000000	CYT				
0.0002122	102230.	481789596.	15.7329369	0.0033383	-0.0144854	
2.9976076	60.000000	CYT				
0.0002272	102350.	450509141.	15.6159905	0.0035478	-0.0155360	
2.9909757	60.000000	CYT				
0.0002422	102457.	423047538.	15.5182226	0.0037583	-0.0165854	
2.9998556	60.000000	CYT				
0.0002572	102457.	398374048.	15.5439512	0.0039977	-0.0176060	
2.9837356	60.000000	CYT				

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

Load No.	Axial Thrust kips	Nominal Mom. Cap. in-kip	Max. Comp. Strain
1	65.570	101932.241	0.00300000

Note that the values of moment capacity in the table above are not factored by a strength reduction factor (phi-factor).

In ACI 318, the value of the strength reduction factor depends on whether the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.70).

The above values should be multiplied by the appropriate strength reduction factor to compute ultimate moment capacity according to ACI 318, Section 9.3.2.2 or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding bending stiffnesses computed for common resistance factor values used for reinforced concrete sections.

Axial Load No.	Resist. Factor for Moment	Nominal Moment Cap in-kips	Ult. (Fac) Ax. Thrust kips	Ult. (Fac) Moment Cap in-kips	Bend. Stiff. at Ult Mom kip-in ²
1	0.65	101932.	42.620500	66256.	2.0365E+09
1	0.70	101932.	45.899000	71353.	2.0280E+09
1	0.75	101932.	49.177500	76449.	1.9829E+09

 Layering Correction Equivalent Depths of Soil & Rock Layers

Layer No.	Top of Layer Below Pile Head ft	Equivalent Top Depth Below Grnd Surf ft	Same Layer Type As Layer Above	Layer is Rock or is Below Rock Layer	F0 Integral for Layer lbs	F1 Integral for Layer lbs
1	0.5000	0.00	N.A.	No	0.00	124.7872
2	2.5000	2.0000	Yes	No	124.7872	94.5000
3	4.0000	0.1965	No	No	219.2872	162229.
4	6.5000	2.6965	Yes	No	162448.	103539.
5	7.5000	3.6965	Yes	No	265987.	1082647.
6	14.0000	209.8162	No	No	1348634.	27006.
7	14.5000	210.3162	Yes	No	1375641.	N.A.

Notes: The F0 integral of Layer n+1 equals the sum of the F0 and F1 integrals for Layer n. Layering correction equivalent depths are computed only for soil types with both shallow-depth and deep-depth expressions for peak lateral load transfer. These soil types are soft and stiff clays, non-liquefied sands, and cemented c-phi soil.

 Computed Values of Pile Loading and Deflection
 for Lateral Loading for Load Case Number 1

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 48990.0 lbs
 Applied moment at pile head = 49875480.0 in-lbs
 Axial thrust load on pile head = 65570.0 lbs

Depth Res.	Deflect. Soil Spr.	Bending Distrib.	Shear Force	Slope S	Total Stress	Bending Stiffness	Soil p
X Es*h feet lb/inch	y Lat. inches lb/inch	Load in-lbs lb/inch	lbs	radians	psi*	in-lb^2	
0.00	0.9244	4.99E+07	48990.	-0.00724	0.00	2.07E+12	
0.00	0.00	0.00					
0.08333	0.9172	4.99E+07	48990.	-0.00721	0.00	2.07E+12	
0.00	0.00	0.00					
0.1667	0.9100	5.00E+07	48990.	-0.00719	0.00	2.07E+12	
0.00	0.00	0.00					
0.2500	0.9028	5.00E+07	48990.	-0.00717	0.00	2.07E+12	
0.00	0.00	0.00					
0.3333	0.8956	5.01E+07	48990.	-0.00714	0.00	2.07E+12	
0.00	0.00	0.00					
0.4167	0.8885	5.01E+07	48990.	-0.00712	0.00	2.07E+12	
0.00	0.00	0.00					
0.5000	0.8814	5.02E+07	48990.	-0.00709	0.00	2.07E+12	
-0.5200	0.5900	0.00					
0.5833	0.8743	5.02E+07	48989.	-0.00707	0.00	2.07E+12	
-1.5558	1.7795	0.00					
0.6667	0.8673	5.03E+07	48987.	-0.00704	0.00	2.07E+12	
-1.5516	1.7891	0.00					
0.7500	0.8602	5.03E+07	48986.	-0.00702	0.00	2.07E+12	
-1.5474	1.7989	0.00					
0.8333	0.8532	5.04E+07	48984.	-0.00700	0.00	2.07E+12	
-1.5432	1.8087	0.00					
0.9167	0.8462	5.04E+07	48983.	-0.00697	0.00	2.07E+12	
-1.5390	1.8186	0.00					
1.0000	0.8393	5.05E+07	48981.	-0.00695	0.00	2.07E+12	
-1.5348	1.8287	0.00					
1.0833	0.8324	5.05E+07	48979.	-0.00692	0.00	2.07E+12	
-1.5305	1.8388	0.00					
1.1667	0.8254	5.06E+07	48978.	-0.00690	0.00	2.07E+12	
-1.5263	1.8491	0.00					
1.2500	0.8186	5.06E+07	48976.	-0.00687	0.00	2.07E+12	

-1.5220	1.8594	0.00					
1.3333	0.8117	5.07E+07	48975.	-0.00685	0.00	2.07E+12	
-1.5178	1.8699	0.00					
1.4167	0.8049	5.07E+07	48973.	-0.00682	0.00	2.07E+12	
-1.5135	1.8804	0.00					
1.5000	0.7980	5.08E+07	48972.	-0.00680	0.00	2.07E+12	
-1.5092	1.8911	0.00					
1.5833	0.7913	5.08E+07	48970.	-0.00677	0.00	2.07E+12	
-1.5049	1.9019	0.00					
1.6667	0.7845	5.09E+07	48969.	-0.00675	0.00	2.07E+12	
-1.5006	1.9128	0.00					
1.7500	0.7778	5.09E+07	48967.	-0.00673	0.00	2.07E+12	
-1.4963	1.9239	0.00					
1.8333	0.7710	5.10E+07	48966.	-0.00670	0.00	2.07E+12	
-1.4920	1.9350	0.00					
1.9167	0.7644	5.10E+07	48964.	-0.00668	0.00	2.07E+12	
-1.4877	1.9463	0.00					
2.0000	0.7577	5.11E+07	48963.	-0.00665	0.00	2.07E+12	
-1.4833	1.9577	0.00					
2.0833	0.7511	5.11E+07	48961.	-0.00663	0.00	2.07E+12	
-1.4790	1.9692	0.00					
2.1667	0.7444	5.12E+07	48960.	-0.00660	0.00	2.06E+12	
-1.4746	1.9809	0.00					
2.2500	0.7379	5.12E+07	48958.	-0.00658	0.00	2.06E+12	
-1.4703	1.9926	0.00					
2.3333	0.7313	5.13E+07	48957.	-0.00655	0.00	2.06E+12	
-1.4659	2.0045	0.00					
2.4167	0.7247	5.13E+07	48956.	-0.00653	0.00	2.06E+12	
-1.4615	2.0166	0.00					
2.5000	0.7182	5.14E+07	48954.	-0.00650	0.00	2.06E+12	
-1.4571	2.0288	0.00					
2.5833	0.7117	5.14E+07	48953.	-0.00648	0.00	2.06E+12	
-1.4527	2.0411	0.00					
2.6667	0.7053	5.15E+07	48951.	-0.00645	0.00	2.06E+12	
-1.4483	2.0535	0.00					
2.7500	0.6988	5.15E+07	48950.	-0.00643	0.00	2.06E+12	
-1.4439	2.0661	0.00					
2.8333	0.6924	5.16E+07	48948.	-0.00640	0.00	2.06E+12	
-1.4395	2.0789	0.00					
2.9167	0.6860	5.16E+07	48947.	-0.00638	0.00	2.06E+12	
-1.4350	2.0918	0.00					
3.0000	0.6797	5.17E+07	48945.	-0.00635	0.00	2.06E+12	
-1.4306	2.1048	0.00					
3.0833	0.6733	5.17E+07	48944.	-0.00633	0.00	2.06E+12	
-1.4261	2.1180	0.00					
3.1667	0.6670	5.18E+07	48943.	-0.00630	0.00	2.06E+12	
-1.4216	2.1313	0.00					
3.2500	0.6607	5.18E+07	48941.	-0.00628	0.00	2.06E+12	
-1.4171	2.1448	0.00					
3.3333	0.6545	5.19E+07	48940.	-0.00625	0.00	2.06E+12	

-1.4126	2.1585	0.00					
3.4167	0.6482	5.19E+07	48938.	-0.00623	0.00	2.06E+12	
-1.4081	2.1723	0.00					
3.5000	0.6420	5.20E+07	48937.	-0.00620	0.00	2.06E+12	
-1.4036	2.1863	0.00					
3.5833	0.6358	5.20E+07	48935.	-0.00618	0.00	2.06E+12	
-1.3991	2.2005	0.00					
3.6667	0.6296	5.20E+07	48934.	-0.00615	0.00	2.06E+12	
-1.3946	2.2148	0.00					
3.7500	0.6235	5.21E+07	48933.	-0.00613	0.00	2.06E+12	
-1.3900	2.2294	0.00					
3.8333	0.6174	5.21E+07	48931.	-0.00610	0.00	2.06E+12	
-1.3855	2.2441	0.00					
3.9167	0.6113	5.22E+07	48930.	-0.00608	0.00	2.06E+12	
-1.3809	2.2589	0.00					
4.0000	0.6052	5.22E+07	47926.	-0.00605	0.00	2.06E+12	
-2006.	3314.	0.00					
4.0833	0.5992	5.23E+07	45886.	-0.00603	0.00	2.06E+12	
-2075.	3464.	0.00					
4.1667	0.5932	5.23E+07	43775.	-0.00600	0.00	2.06E+12	
-2145.	3617.	0.00					
4.2500	0.5872	5.24E+07	41594.	-0.00597	0.00	2.06E+12	
-2216.	3773.	0.00					
4.3333	0.5812	5.24E+07	39343.	-0.00595	0.00	2.06E+12	
-2286.	3934.	0.00					
4.4167	0.5753	5.25E+07	37021.	-0.00592	0.00	2.06E+12	
-2357.	4098.	0.00					
4.5000	0.5694	5.25E+07	34628.	-0.00590	0.00	2.06E+12	
-2429.	4265.	0.00					
4.5833	0.5635	5.25E+07	32164.	-0.00587	0.00	2.06E+12	
-2500.	4436.	0.00					
4.6667	0.5576	5.26E+07	29628.	-0.00585	0.00	2.06E+12	
-2572.	4612.	0.00					
4.7500	0.5518	5.26E+07	27021.	-0.00582	0.00	2.06E+12	
-2643.	4790.	0.00					
4.8333	0.5460	5.26E+07	24341.	-0.00580	0.00	2.06E+12	
-2715.	4973.	0.00					
4.9167	0.5402	5.26E+07	21590.	-0.00577	0.00	2.06E+12	
-2787.	5160.	0.00					
5.0000	0.5345	5.27E+07	18767.	-0.00575	0.00	2.06E+12	
-2860.	5350.	0.00					
5.0833	0.5287	5.27E+07	15871.	-0.00572	0.00	2.06E+12	
-2932.	5545.	0.00					
5.1667	0.5230	5.27E+07	12903.	-0.00569	0.00	2.06E+12	
-3004.	5744.	0.00					
5.2500	0.5173	5.27E+07	9863.	-0.00567	0.00	2.06E+12	
-3076.	5947.	0.00					
5.3333	0.5117	5.27E+07	6750.	-0.00564	0.00	2.06E+12	
-3149.	6153.	0.00					
5.4167	0.5061	5.27E+07	3565.	-0.00562	0.00	2.06E+12	

-3221.	6365.	0.00					
5.5000	0.5004	5.27E+07	308.4817	-0.00559	0.00	2.06E+12	
-3293.	6580.	0.00					
5.5833	0.4949	5.27E+07	-3020.	-0.00557	0.00	2.06E+12	
-3365.	6800.	0.00					
5.6667	0.4893	5.27E+07	-6421.	-0.00554	0.00	2.06E+12	
-3437.	7024.	0.00					
5.7500	0.4838	5.27E+07	-9894.	-0.00552	0.00	2.06E+12	
-3509.	7252.	0.00					
5.8333	0.4783	5.27E+07	-13438.	-0.00549	0.00	2.06E+12	
-3580.	7485.	0.00					
5.9167	0.4728	5.27E+07	-17054.	-0.00546	0.00	2.06E+12	
-3651.	7723.	0.00					
6.0000	0.4674	5.27E+07	-20741.	-0.00544	0.00	2.06E+12	
-3722.	7965.	0.00					
6.0833	0.4619	5.26E+07	-24499.	-0.00541	0.00	2.06E+12	
-3793.	8212.	0.00					
6.1667	0.4565	5.26E+07	-28327.	-0.00539	0.00	2.06E+12	
-3864.	8463.	0.00					
6.2500	0.4512	5.26E+07	-32226.	-0.00536	0.00	2.06E+12	
-3934.	8720.	0.00					
6.3333	0.4458	5.26E+07	-36195.	-0.00534	0.00	2.06E+12	
-4004.	8981.	0.00					
6.4167	0.4405	5.25E+07	-40233.	-0.00531	0.00	2.06E+12	
-4073.	9247.	0.00					
6.5000	0.4352	5.25E+07	-44341.	-0.00529	0.00	2.06E+12	
-4142.	9518.	0.00					
6.5833	0.4299	5.24E+07	-48517.	-0.00526	0.00	2.06E+12	
-4211.	9794.	0.00					
6.6667	0.4247	5.24E+07	-52762.	-0.00523	0.00	2.06E+12	
-4279.	10075.	0.00					
6.7500	0.4194	5.23E+07	-57074.	-0.00521	0.00	2.06E+12	
-4346.	10362.	0.00					
6.8333	0.4142	5.23E+07	-61454.	-0.00518	0.00	2.06E+12	
-4413.	10654.	0.00					
6.9167	0.4091	5.22E+07	-65900.	-0.00516	0.00	2.06E+12	
-4480.	10951.	0.00					
7.0000	0.4039	5.21E+07	-70413.	-0.00513	0.00	2.06E+12	
-4546.	11254.	0.00					
7.0833	0.3988	5.21E+07	-74991.	-0.00511	0.00	2.06E+12	
-4611.	11562.	0.00					
7.1667	0.3937	5.20E+07	-79635.	-0.00508	0.00	2.06E+12	
-4676.	11876.	0.00					
7.2500	0.3886	5.19E+07	-84342.	-0.00506	0.00	2.06E+12	
-4740.	12195.	0.00					
7.3333	0.3836	5.18E+07	-89114.	-0.00503	0.00	2.06E+12	
-4804.	12525.	0.00					
7.4167	0.3786	5.17E+07	-93952.	-0.00501	0.00	2.06E+12	
-4872.	12868.	0.00					
7.5000	0.3736	5.16E+07	-98857.	-0.00498	0.00	2.06E+12	

-4938.	13218.	0.00					
7.5833	0.3686	5.15E+07	-103814.	-0.00496	0.00	2.06E+12	
-4975.	13496.	0.00					
7.6667	0.3637	5.14E+07	-108806.	-0.00493	0.00	2.06E+12	
-5011.	13778.	0.00					
7.7500	0.3587	5.13E+07	-113834.	-0.00491	0.00	2.06E+12	
-5046.	14066.	0.00					
7.8333	0.3538	5.12E+07	-118898.	-0.00488	0.00	2.06E+12	
-5081.	14358.	0.00					
7.9167	0.3490	5.11E+07	-123996.	-0.00486	0.00	2.07E+12	
-5115.	14657.	0.00					
8.0000	0.3441	5.09E+07	-129127.	-0.00483	0.00	2.07E+12	
-5148.	14960.	0.00					
8.0833	0.3393	5.08E+07	-134292.	-0.00481	0.00	2.07E+12	
-5181.	15269.	0.00					
8.1667	0.3345	5.07E+07	-139489.	-0.00478	0.00	2.07E+12	
-5213.	15584.	0.00					
8.2500	0.3297	5.05E+07	-144718.	-0.00476	0.00	2.07E+12	
-5245.	15905.	0.00					
8.3333	0.3250	5.04E+07	-149978.	-0.00474	0.00	2.07E+12	
-5275.	16232.	0.00					
8.4167	0.3203	5.02E+07	-155268.	-0.00471	0.00	2.07E+12	
-5305.	16565.	0.00					
8.5000	0.3156	5.01E+07	-160588.	-0.00469	0.00	2.07E+12	
-5335.	16905.	0.00					
8.5833	0.3109	4.99E+07	-165937.	-0.00466	0.00	2.07E+12	
-5363.	17251.	0.00					
8.6667	0.3062	4.97E+07	-171314.	-0.00464	0.00	2.07E+12	
-5391.	17603.	0.00					
8.7500	0.3016	4.96E+07	-176719.	-0.00461	0.00	2.07E+12	
-5418.	17963.	0.00					
8.8333	0.2970	4.94E+07	-182150.	-0.00459	0.00	2.07E+12	
-5444.	18330.	0.00					
8.9167	0.2924	4.92E+07	-187607.	-0.00457	0.00	2.07E+12	
-5470.	18704.	0.00					
9.0000	0.2879	4.90E+07	-193089.	-0.00454	0.00	2.07E+12	
-5494.	19085.	0.00					
9.0833	0.2834	4.88E+07	-198595.	-0.00452	0.00	2.07E+12	
-5518.	19474.	0.00					
9.1667	0.2788	4.86E+07	-204124.	-0.00450	0.00	2.07E+12	
-5541.	19871.	0.00					
9.2500	0.2744	4.84E+07	-209677.	-0.00447	0.00	2.07E+12	
-5563.	20277.	0.00					
9.3333	0.2699	4.82E+07	-215250.	-0.00445	0.00	2.07E+12	
-5584.	20691.	0.00					
9.4167	0.2655	4.80E+07	-220845.	-0.00443	0.00	2.07E+12	
-5605.	21113.	0.00					
9.5000	0.2610	4.78E+07	-226459.	-0.00440	0.00	2.07E+12	
-5624.	21545.	0.00					
9.5833	0.2567	4.75E+07	-232093.	-0.00438	0.00	2.07E+12	

-5643.	21986.	0.00					
9.6667	0.2523	4.73E+07	-237745.	-0.00436	0.00	2.07E+12	
-5660.	22436.	0.00					
9.7500	0.2479	4.71E+07	-243413.	-0.00433	0.00	2.07E+12	
-5677.	22897.	0.00					
9.8333	0.2436	4.68E+07	-249098.	-0.00431	0.00	2.07E+12	
-5693.	23367.	0.00					
9.9167	0.2393	4.66E+07	-254798.	-0.00429	0.00	2.08E+12	
-5708.	23849.	0.00					
10.0000	0.2350	4.63E+07	-260513.	-0.00427	0.00	2.08E+12	
-5721.	24341.	0.00					
10.0833	0.2308	4.60E+07	-266241.	-0.00424	0.00	2.08E+12	
-5734.	24846.	0.00					
10.1667	0.2266	4.58E+07	-271980.	-0.00422	0.00	2.08E+12	
-5746.	25361.	0.00					
10.2500	0.2223	4.55E+07	-277732.	-0.00420	0.00	2.08E+12	
-5756.	25890.	0.00					
10.3333	0.2182	4.52E+07	-283493.	-0.00418	0.00	2.08E+12	
-5766.	26431.	0.00					
10.4167	0.2140	4.49E+07	-289263.	-0.00416	0.00	2.08E+12	
-5775.	26986.	0.00					
10.5000	0.2098	4.46E+07	-295041.	-0.00414	0.00	2.08E+12	
-5782.	27554.	0.00					
10.5833	0.2057	4.43E+07	-300827.	-0.00411	0.00	2.08E+12	
-5788.	28137.	0.00					
10.6667	0.2016	4.40E+07	-306618.	-0.00409	0.00	2.08E+12	
-5794.	28736.	0.00					
10.7500	0.1975	4.37E+07	-312413.	-0.00407	0.00	2.08E+12	
-5798.	29350.	0.00					
10.8333	0.1935	4.34E+07	-318213.	-0.00405	0.00	2.08E+12	
-5801.	29986.	0.00					
10.9167	0.1894	4.31E+07	-324016.	-0.00403	0.00	2.08E+12	
-5806.	30649.	0.00					
11.0000	0.1854	4.28E+07	-329824.	-0.00401	0.00	2.08E+12	
-5809.	31332.	0.00					
11.0833	0.1814	4.24E+07	-335634.	-0.00399	0.00	2.09E+12	
-5811.	32034.	0.00					
11.1667	0.1774	4.21E+07	-341446.	-0.00397	0.00	2.09E+12	
-5812.	32757.	0.00					
11.2500	0.1735	4.18E+07	-347258.	-0.00395	0.00	2.09E+12	
-5812.	33503.	0.00					
11.3333	0.1695	4.14E+07	-353069.	-0.00393	0.00	2.09E+12	
-5810.	34272.	0.00					
11.4167	0.1656	4.10E+07	-358878.	-0.00391	0.00	2.09E+12	
-5807.	35065.	0.00					
11.5000	0.1617	4.07E+07	-364683.	-0.00389	0.00	2.09E+12	
-5803.	35884.	0.00					
11.5833	0.1578	4.03E+07	-370483.	-0.00387	0.00	2.09E+12	
-5797.	36730.	0.00					
11.6667	0.1540	3.99E+07	-376277.	-0.00385	0.00	2.09E+12	

-5790.	37605.	0.00				
11.7500	0.1501	3.96E+07	-382063.	-0.00383	0.00	2.09E+12
-5782.	38511.	0.00				
11.8333	0.1463	3.92E+07	-387840.	-0.00381	0.00	2.09E+12
-5772.	39449.	0.00				
11.9167	0.1425	3.88E+07	-393607.	-0.00379	0.00	2.10E+12
-5761.	40422.	0.00				
12.0000	0.1387	3.84E+07	-399361.	-0.00378	0.00	2.10E+12
-5748.	41431.	0.00				
12.0833	0.1350	3.80E+07	-405101.	-0.00376	0.00	2.10E+12
-5733.	42479.	0.00				
12.1667	0.1312	3.76E+07	-410817.	-0.00374	0.00	2.10E+12
-5700.	43443.	0.00				
12.2500	0.1275	3.72E+07	-416456.	-0.00372	0.00	2.10E+12
-5578.	43753.	0.00				
12.3333	0.1238	3.68E+07	-421972.	-0.00370	0.00	2.10E+12
-5454.	44063.	0.00				
12.4167	0.1201	3.63E+07	-427363.	-0.00369	0.00	2.10E+12
-5328.	44374.	0.00				
12.5000	0.1164	3.59E+07	-432627.	-0.00367	0.00	2.10E+12
-5201.	44684.	0.00				
12.5833	0.1127	3.55E+07	-437764.	-0.00365	0.00	2.11E+12
-5072.	44994.	0.00				
12.6667	0.1091	3.50E+07	-442771.	-0.00364	0.00	2.11E+12
-4942.	45304.	0.00				
12.7500	0.1055	3.46E+07	-447647.	-0.00362	0.00	2.11E+12
-4811.	45615.	0.00				
12.8333	0.1018	3.41E+07	-452391.	-0.00360	0.00	2.11E+12
-4677.	45925.	0.00				
12.9167	0.09825	3.37E+07	-457001.	-0.00359	0.00	2.11E+12
-4543.	46235.	0.00				
13.0000	0.09467	3.32E+07	-461476.	-0.00357	0.00	2.11E+12
-4407.	46546.	0.00				
13.0833	0.09111	3.28E+07	-465814.	-0.00356	0.00	2.12E+12
-4269.	46856.	0.00				
13.1667	0.08756	3.23E+07	-470014.	-0.00354	0.00	2.12E+12
-4130.	47166.	0.00				
13.2500	0.08403	3.18E+07	-474073.	-0.00353	0.00	2.12E+12
-3989.	47477.	0.00				
13.3333	0.08051	3.13E+07	-477992.	-0.00351	0.00	2.12E+12
-3847.	47787.	0.00				
13.4167	0.07701	3.09E+07	-481767.	-0.00350	0.00	2.12E+12
-3704.	48097.	0.00				
13.5000	0.07352	3.04E+07	-485399.	-0.00348	0.00	2.13E+12
-3559.	48407.	0.00				
13.5833	0.07005	2.99E+07	-488884.	-0.00347	0.00	2.13E+12
-3412.	48718.	0.00				
13.6667	0.06659	2.94E+07	-492223.	-0.00345	0.00	2.13E+12
-3265.	49028.	0.00				
13.7500	0.06314	2.89E+07	-495413.	-0.00344	0.00	2.13E+12

-3115.	49338.	0.00					
13.8333	0.05971	2.84E+07	-498453.	-0.00343	0.00	3.15E+12	
-2964.	49649.	0.00					
13.9167	0.05628	2.79E+07	-501341.	-0.00342	0.00	4.97E+12	
-2812.	49959.	0.00					
14.0000	0.05286	2.74E+07	-507837.	-0.00342	0.00	7.80E+12	
-10180.	192572.	0.00					
14.0833	0.04945	2.69E+07	-517850.	-0.00341	0.00	9.64E+12	
-9846.	199110.	0.00					
14.1667	0.04604	2.64E+07	-527523.	-0.00341	0.00	9.65E+12	
-9500.	206356.	0.00					
14.2500	0.04263	2.58E+07	-536844.	-0.00341	0.00	9.65E+12	
-9142.	214448.	0.00					
14.3333	0.03922	2.53E+07	-545799.	-0.00341	0.00	9.65E+12	
-8769.	223566.	0.00					
14.4167	0.03582	2.47E+07	-554373.	-0.00340	0.00	9.66E+12	
-8380.	233947.	0.00					
14.5000	0.03242	2.42E+07	-562549.	-0.00340	0.00	9.66E+12	
-7972.	245914.	0.00					
14.5833	0.02902	2.36E+07	-570306.	-0.00340	0.00	9.67E+12	
-7542.	259916.	0.00					
14.6667	0.02562	2.30E+07	-577621.	-0.00340	0.00	9.67E+12	
-7087.	276605.	0.00					
14.7500	0.02223	2.25E+07	-584465.	-0.00339	0.00	9.68E+12	
-6601.	296971.	0.00					
14.8333	0.01884	2.19E+07	-590804.	-0.00339	0.00	9.68E+12	
-6077.	322598.	0.00					
14.9167	0.01545	2.13E+07	-596515.	-0.00339	0.00	9.69E+12	
-5345.	346000.	0.00					
15.0000	0.01206	2.07E+07	-601286.	-0.00339	0.00	9.69E+12	
-4197.	348000.	0.00					
15.0833	0.00867	2.01E+07	-604902.	-0.00338	0.00	9.70E+12	
-3036.	350000.	0.00					
15.1667	0.00529	1.95E+07	-607352.	-0.00338	0.00	9.70E+12	
-1863.	352000.	0.00					
15.2500	0.00191	1.89E+07	-608621.	-0.00338	0.00	9.71E+12	
-676.4565	354000.	0.00					
15.3333	-0.00147	1.83E+07	-608698.	-0.00338	0.00	9.71E+12	
522.6585	356000.	0.00					
15.4167	-0.00485	1.77E+07	-607569.	-0.00338	0.00	9.72E+12	
1735.	358000.	0.00					
15.5000	-0.00822	1.70E+07	-605222.	-0.00337	0.00	9.72E+12	
2959.	360000.	0.00					
15.5833	-0.01159	1.64E+07	-601644.	-0.00337	0.00	9.73E+12	
4197.	362000.	0.00					
15.6667	-0.01497	1.58E+07	-596837.	-0.00337	0.00	9.73E+12	
5417.	361959.	0.00					
15.7500	-0.01834	1.52E+07	-591130.	-0.00337	0.00	9.74E+12	
5996.	327003.	0.00					
15.8333	-0.02171	1.47E+07	-584871.	-0.00337	0.00	9.74E+12	

6524.	300555.	0.00					
15.9167	-0.02507	1.41E+07	-578103.	-0.00337	0.00	9.74E+12	
7011.	279644.	0.00					
16.0000	-0.02844	1.35E+07	-570864.	-0.00337	0.00	9.75E+12	
7467.	262573.	0.00					
16.0833	-0.03180	1.29E+07	-563182.	-0.00336	0.00	9.75E+12	
7896.	248295.	0.00					
16.1667	-0.03517	1.24E+07	-555082.	-0.00336	0.00	9.76E+12	
8303.	236123.	0.00					
16.2500	-0.03853	1.18E+07	-546585.	-0.00336	0.00	9.76E+12	
8691.	225586.	0.00					
16.3333	-0.04189	1.13E+07	-537708.	-0.00336	0.00	9.77E+12	
9062.	216347.	0.00					
16.4167	-0.04525	1.08E+07	-528468.	-0.00336	0.00	9.77E+12	
9419.	208161.	0.00					
16.5000	-0.04861	1.02E+07	-518878.	-0.00336	0.00	9.77E+12	
9762.	200840.	0.00					
16.5833	-0.05196	9715047.	-508950.	-0.00336	0.00	9.78E+12	
10093.	194244.	0.00					
16.6667	-0.05532	9211364.	-498696.	-0.00336	0.00	9.78E+12	
10414.	188259.	0.00					
16.7500	-0.05867	8718095.	-488126.	-0.00335	0.00	9.79E+12	
10725.	182797.	0.00					
16.8333	-0.06203	8235552.	-477249.	-0.00335	0.00	9.79E+12	
11028.	177785.	0.00					
16.9167	-0.06538	7764036.	-466075.	-0.00335	0.00	9.79E+12	
11322.	173165.	0.00					
17.0000	-0.06874	7303842.	-454609.	-0.00335	0.00	9.80E+12	
11609.	168889.	0.00					
17.0833	-0.07209	6855257.	-442861.	-0.00335	0.00	9.80E+12	
11888.	164916.	0.00					
17.1667	-0.07544	6418560.	-430836.	-0.00335	0.00	9.80E+12	
12161.	161211.	0.00					
17.2500	-0.07879	5994024.	-418541.	-0.00335	0.00	9.81E+12	
12429.	157745.	0.00					
17.3333	-0.08214	5581918.	-405982.	-0.00335	0.00	9.81E+12	
12690.	154495.	0.00					
17.4167	-0.08549	5182501.	-393163.	-0.00335	0.00	9.81E+12	
12946.	151438.	0.00					
17.5000	-0.08884	4796030.	-380091.	-0.00335	0.00	9.81E+12	
13197.	148556.	0.00					
17.5833	-0.09219	4422757.	-366771.	-0.00335	0.00	9.82E+12	
13444.	145833.	0.00					
17.6667	-0.09553	4062927.	-353206.	-0.00335	0.00	9.82E+12	
13686.	143255.	0.00					
17.7500	-0.09888	3716784.	-339401.	-0.00335	0.00	9.82E+12	
13923.	140809.	0.00					
17.8333	-0.1022	3384563.	-325361.	-0.00335	0.00	9.83E+12	
14157.	138485.	0.00					
17.9167	-0.1056	3066500.	-311089.	-0.00335	0.00	9.83E+12	

14387.	136272.	0.00					
18.0000	-0.1089	2762824.	-296589.	-0.00335	0.00	9.83E+12	
14613.	134162.	0.00					
18.0833	-0.1123	2473761.	-281864.	-0.00335	0.00	9.83E+12	
14836.	132147.	0.00					
18.1667	-0.1156	2199535.	-266918.	-0.00335	0.00	9.83E+12	
15056.	130221.	0.00					
18.2500	-0.1190	1940363.	-251755.	-0.00335	0.00	9.83E+12	
15272.	128377.	0.00					
18.3333	-0.1223	1696464.	-236376.	-0.00335	0.00	9.83E+12	
15485.	126609.	0.00					
18.4167	-0.1257	1468050.	-220786.	-0.00335	0.00	9.83E+12	
15695.	124912.	0.00					
18.5000	-0.1290	1255331.	-204987.	-0.00335	0.00	9.83E+12	
15903.	123281.	0.00					
18.5833	-0.1323	1058515.	-188981.	-0.00335	0.00	9.83E+12	
16108.	121713.	0.00					
18.6667	-0.1357	877807.	-172772.	-0.00335	0.00	9.83E+12	
16310.	120204.	0.00					
18.7500	-0.1390	713409.	-156362.	-0.00334	0.00	9.83E+12	
16510.	118749.	0.00					
18.8333	-0.1424	565521.	-139754.	-0.00334	0.00	9.83E+12	
16707.	117346.	0.00					
18.9167	-0.1457	434340.	-122949.	-0.00334	0.00	9.83E+12	
16903.	115991.	0.00					
19.0000	-0.1491	320062.	-105950.	-0.00334	0.00	9.83E+12	
17095.	114682.	0.00					
19.0833	-0.1524	222879.	-88759.	-0.00334	0.00	9.83E+12	
17286.	113417.	0.00					
19.1667	-0.1558	142982.	-71379.	-0.00334	0.00	9.83E+12	
17475.	112192.	0.00					
19.2500	-0.1591	80561.	-53811.	-0.00334	0.00	9.83E+12	
17661.	111007.	0.00					
19.3333	-0.1624	35800.	-36057.	-0.00334	0.00	9.83E+12	
17846.	109858.	0.00					
19.4167	-0.1658	8886.	-18119.	-0.00334	0.00	9.83E+12	
18029.	108744.	0.00					
19.5000	-0.1691	0.00	0.00	-0.00334	0.00	9.83E+12	
18210.	53832.	0.00					

* This analysis computed pile response using nonlinear moment-curvature relationships. Values of total stress due to combined axial and bending stresses are computed only for elastic sections only and do not equal the actual stresses in concrete and steel. Stresses in concrete and steel may be interpolated from the output for nonlinear bending properties relative to the magnitude of bending moment developed in the pile.

Output Summary for Load Case No. 1:

Pile-head deflection = 0.92439356 inches
 Computed slope at pile head = -0.00723761 radians
 Maximum bending moment = 52722637. inch-lbs
 Maximum shear force = -608698. lbs
 Depth of maximum bending moment = 5.50000000 feet below pile head
 Depth of maximum shear force = 15.33333333 feet below pile head
 Number of iterations = 27
 Number of zero deflection points = 1

 Summary of Pile-head Responses for Conventional Analyses

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, V, lbs, and Load 2 = Moment, M, in-lbs
 Load Type 2: Load 1 = Shear, V, lbs, and Load 2 = Slope, S, radians
 Load Type 3: Load 1 = Shear, V, lbs, and Load 2 = Rot. Stiffness, R, in-lbs/rad.
 Load Type 4: Load 1 = Top Deflection, y, inches, and Load 2 = Moment, M, in-lbs
 Load Type 5: Load 1 = Top Deflection, y, inches, and Load 2 = Slope, S, radians

Case No.	Load Type	Load 1	Load 2	Axial Loading	Pile-head Deflection	Pile-head Rotation	Max in
		Shear, V, lbs	Moment, M, in-lbs		inches	radians	
1	V, lb	48990.	M, in-lb	65570.	0.9244	-0.00724	
		-608698.	5.27E+07				

Maximum pile-head deflection = 0.9243935590 inches
 Maximum pile-head rotation = -0.0072376096 radians = -0.414684 deg.

The analysis ended normally.

Drilled Pier Foundation

BU # : 876320
Site Name: 528 Wheelers Farm Rd
Order Number: TIA-222
Revision: H
Tower Type: Monopole



Check Limitation	
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>
	N/A
Additional Longitudinal Rebar	
Input Effective Depths (else Actual):	<input checked="" type="checkbox"/>
Shear Design Options	
Check Shear along Depth of Pier:	<input checked="" type="checkbox"/>
Utilize Shear-Friction Methodology:	<input type="checkbox"/>
Override Critical Depth:	<input checked="" type="checkbox"/>

Analysis Results

Soil Lateral Check	Compression	Uplift
D _{req} (ft from TOC)	5.74	-
Soil Safety Factor	1.97	-
Max Moment (kip-ft)	4455.48	-
Rating*	64.4%	-

Soil Vertical Check

Soil Vertical Check	Compression	Uplift
Skin Friction (kips)	525.00	-
End Bearing (kips)	600.00	-
Weight of Concrete (kips)	100.49	-
Total Capacity (kips)	1125.00	-
Axial (kips)	166.06	-
Rating*	14.1%	-

Reinforced Concrete Flexure

Reinforced Concrete Flexure	Compression	Uplift
Critical Depth (ft from TOC)	5.57	-
Critical Moment (kip-ft)	4454.93	-
Critical Moment Capacity	7552.91	-
Rating*	56.2%	-

Reinforced Concrete Shear

Reinforced Concrete Shear	Compression	Uplift
Critical Depth (ft from TOC)	15.33	-
Critical Shear (kip)	608.70	-
Critical Shear Capacity	680.53	-
Rating*	85.2%	-

Structural Foundation Rating*	85.2%
Soil Interaction Rating*	64.4%

*Rating per TIA-222-H Section 15.5

Rebar 2 Fy Override (ksi)	
Rebar 3 Fy Override (ksi)	

Rebar & Pier Options

Embedded Rebar Inputs

Belled Pier Inputs

Pier Design Data

Depth	19 ft
Ext. Above Grade	0.5 ft
Pier Section 1	
<i>From 0.5' above grade to 19' below grade</i>	
Pier Diameter	7 ft
Rebar Quantity	32
Rebar Size	11
Clear Cover to Ties	4 in
Tie Size	5
Tie Spacing	18 in

Material Properties	
Concrete Strength, f _c :	3 ksi
Rebar Strength, F _y :	60 ksi
Tie Yield Strength, F _y :	40 ksi

Applied Loads	
Moment (kip-ft)	4156.29
Axial Force (kips)	65.57
Shear Force (kips)	48.99

Soil Profile

# of Layers	7
-------------	---

Groundwater Depth	7
-------------------	---

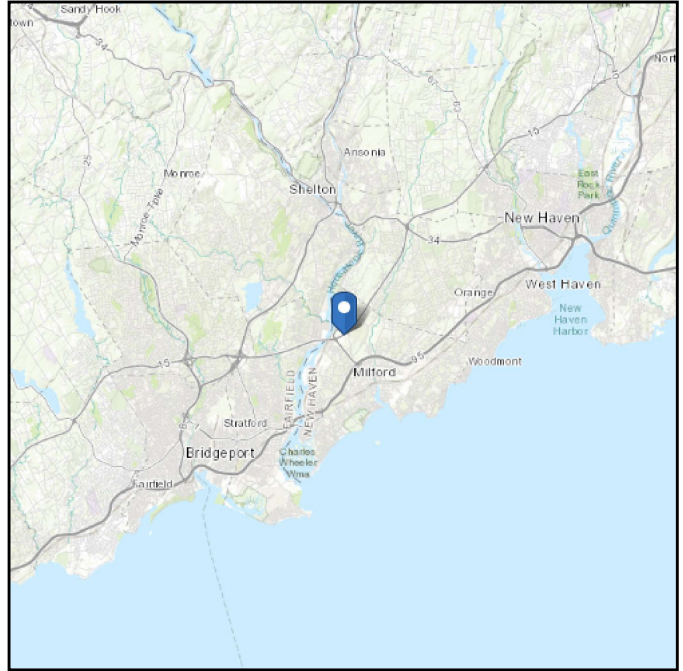
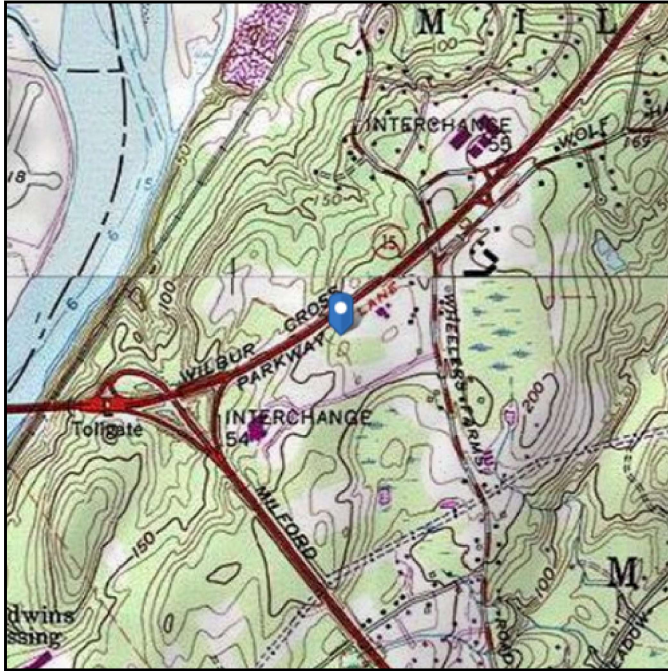
Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ _{soil} (pcf)	γ _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	2	2	100	150	0	0	0.000	0.000	0.00	0.00			Chesionless
2	2	3.5	1.5	135	150	0	0	0.000	0.000	0.00	0.00			Chesionless
3	3.5	6	2.5	135	150	0	42	0.000	0.000	0.00	0.00			Chesionless
4	6	7	1	135	150	0	42	0.000	0.000	1.28	1.28			Chesionless
5	7	13.5	6.5	72.6	87.6	0	42	0.000	0.000	1.28	1.28			Chesionless
6	13.5	14	0.5	77.6	87.6	8	0	3.600	3.600	1.28	1.28			Cohesive
7	14	19	5	77.6	87.6	8	0	3.60	3.60	4.32	4.32	20,787.58		Cohesive

ASCE 7 Hazards Report

Address:
No Address at This
Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 212.97 ft (NAVD 88)
Latitude: 41.248431
Longitude: -73.079075



Wind

Results:

Wind Speed:	125 Vmph per jurisdictional requirement
10-year MRI	77 Vmph
25-year MRI	87 Vmph
50-year MRI	93 Vmph
100-year MRI	100 Vmph

Data Source: ASCE/SEI 7-10 Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

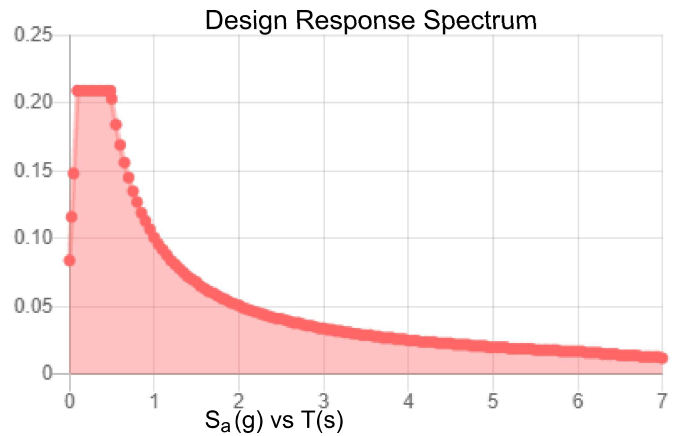
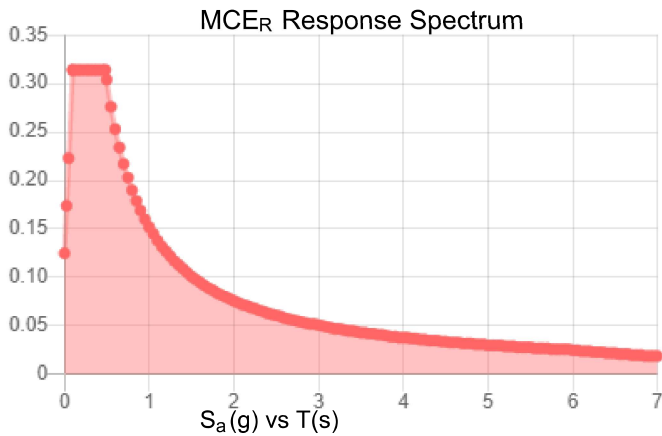
Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Stiff Soil

Results:

S_s :	0.196	S_{DS} :	0.209
S_1 :	0.063	S_{D1} :	0.101
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.104
S_{MS} :	0.314	PGA _M :	0.166
S_{M1} :	0.152	F _{PGA} :	1.591
		I_e :	1

Seismic Design Category B



Data Accessed:

Thu May 27 2021

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 0.75 in.

Concurrent Temperature: 15 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Thu May 27 2021

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

Exhibit E

Mount Analysis

Date: **September 15, 2021**

Michael McWilliams
Crown Castle
8000 Avalon Blvd, Suite 700,
Alpharetta, GA 30009
770-375-4936

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
Infinigy Engineering, PLLC
1033 Watervliet Shaker Road
Albany, NY 12205
518-690-0790
structural@infinigy.com

Subject: **Mount Analysis Report**

Carrier Designation: **Dish Network 5G**
Carrier Site Number: BOHVN00167A
Carrier Site Name: CT-CCI-T-876320

Crown Castle Designation: **Crown Castle BU Number:** 876320
Crown Castle Site Name: 528 WHEELERS FARM RD
Crown Castle JDE Job Number: 645177
Crown Castle Order Number: 553384 Rev. 2

Engineering Firm Designation: **Infinigy Engineering, PLLC Report Designation:** 1039-Z0001-B

Site Data: **528 Wheelers Farm Road, Milford, New Haven County, CT, 06460**
Latitude 41°14'54.35" Longitude -73°4'44.67"

Structure Information: **Tower Height & Type:** **120.0 ft Monopole**
Mount Elevation: **86.0 ft**
Mount Type: **8.0 ft Platform**

Dear Michael McWilliams,

Infinigy Engineering, PLLC is pleased to submit this "**Mount Analysis Report**" to determine the structural integrity of Dish Network's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform

Sufficient

***Sufficient upon completion of the changes listed in the 'Recommendations' section of this report.**

This analysis has been performed in accordance with the 2015 International Building Code based upon an ultimate 3-second gust wind speed of 119 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Farhad Ahmadyar

Respectfully Submitted by:
Emmanuel Poulin, P.E.
518-690-0790
structural@infinigy.com
CT PE License No. 22947

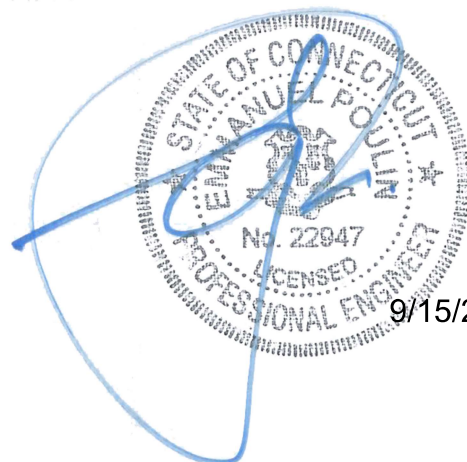


TABLE OF CONTENTS

1) INTRODUCTION

2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

3.1) Analysis Method

3.2) Assumptions

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity

4.1) Recommendations

5) APPENDIX A

Wire Frame and Rendered Models

6) APPENDIX B

Software Input Calculations

7) APPENDIX C

Software Analysis Output

8) APPENDIX D

Additional Calculations

1) INTRODUCTION

This is a proposed 3-sector 8.0 ft Platform designed by Commscope, Inc.

2) ANALYSIS CRITERIA

Building Code: 2015 IBC
TIA-222 Revision: TIA-222-H
Risk Category: II
Ultimate Wind Speed: 119 mph
Exposure Category: C
Topographic Factor at Base: 1.0
Topographic Factor at Mount: 1.0
Ice Thickness: 1.5 in
Wind Speed with Ice: 50 mph
Seismic S_s: 0.196
Seismic S₁: 0.063
Live Loading Wind Speed: 30 mph
Man Live Load at Mid/End-Points: 250 lb
Man Live Load at Mount Pipes: 500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
86.0	86.0	3	JMA WIRELESS	MX08FRO665-21	8.0 ft Platform (Commscope MC-PK8-DSH)
		3	FUJITSU	TA08025-B604	
		3	FUJITSU	TA08025-B605	
		1	RAYCAP	RDIDC-9181-PF-48	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	Dish Network Application	553384 Rev. 2	CCI Sites
Mount Manufacturer Drawings	Commscope, Inc.	Part No. MC-PK8-DSH	Infinigy

3.1) Analysis Method

RISA-3D (Version 17.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

Infinigy Mount Analysis Tool V2.1.7, a tool internally developed by Infinigy, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B “Software Input Calculations”.

This analysis was performed in accordance with Crown Castle’s ENG-SOW-10208 *Tower Mount Analysis* (Revision B).

3.2) Assumptions

- 1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
- 2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
- 3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 4) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
- 5) Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
- 6) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM A500 (GR B-46)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325

This analysis may be affected if any assumptions are not valid or have been made in error. Infinigy Engineering, PLLC should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Platform, All Sectors)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1,2	Mount Pipe(s)	MP4	86.0	12.6	Pass
	Horizontal(s)	HOR1		12.5	Pass
	Standoff(s)	S3		30.2	Pass
	Bracing(s)	M1		34.6	Pass
	Mount Connection(s)	--		24.1	Pass

Structure Rating (max from all components) =	34.6%
-----------------------------------------------------	--------------

Notes:

- 1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
- 2) See additional documentation in "Appendix D – Additional Calculations" for detailed mount connection calculations.

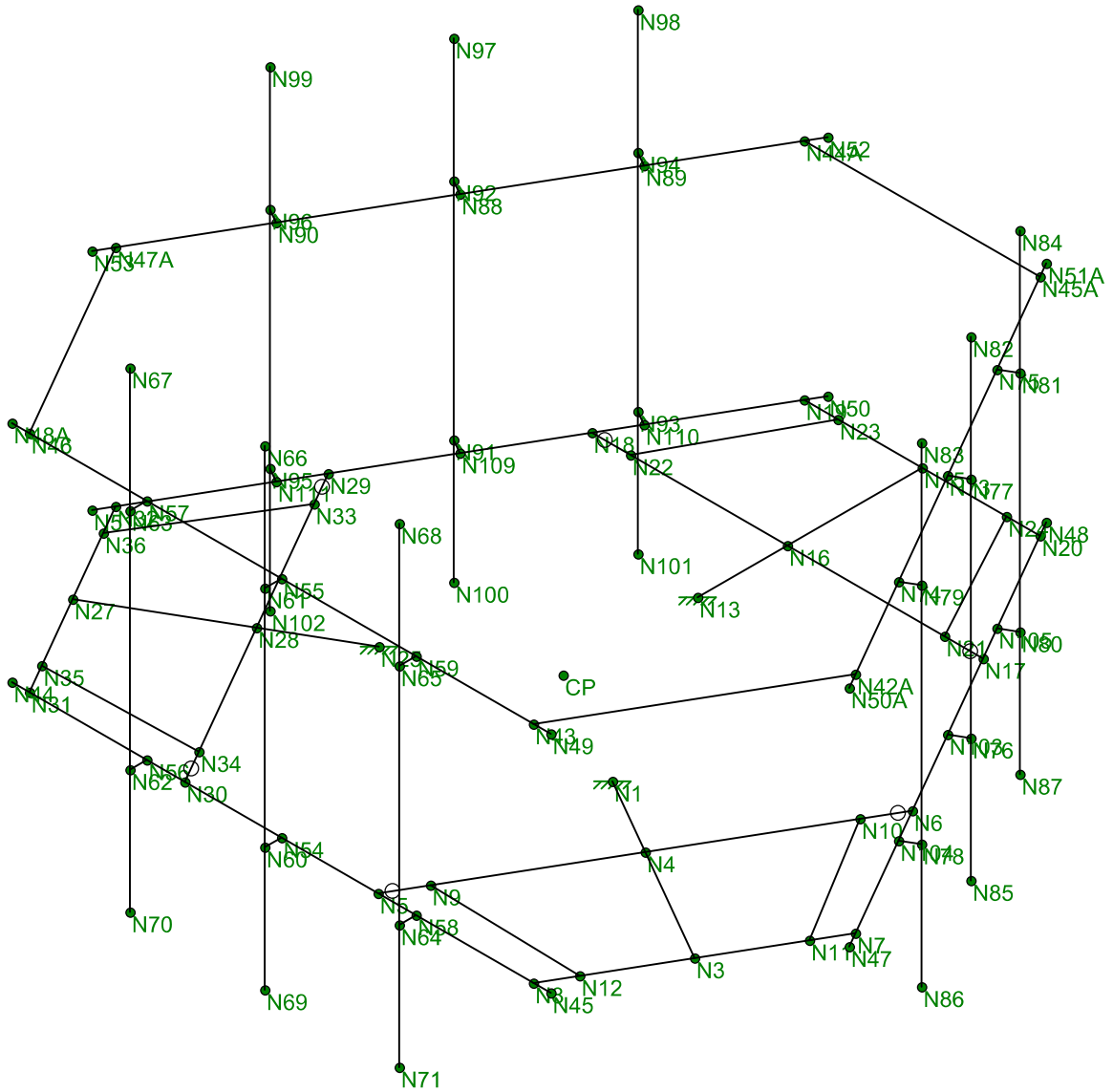
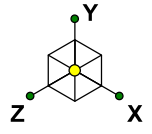
4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. In order for the results of the analysis to be considered valid, the proposed mount listed below must be installed.

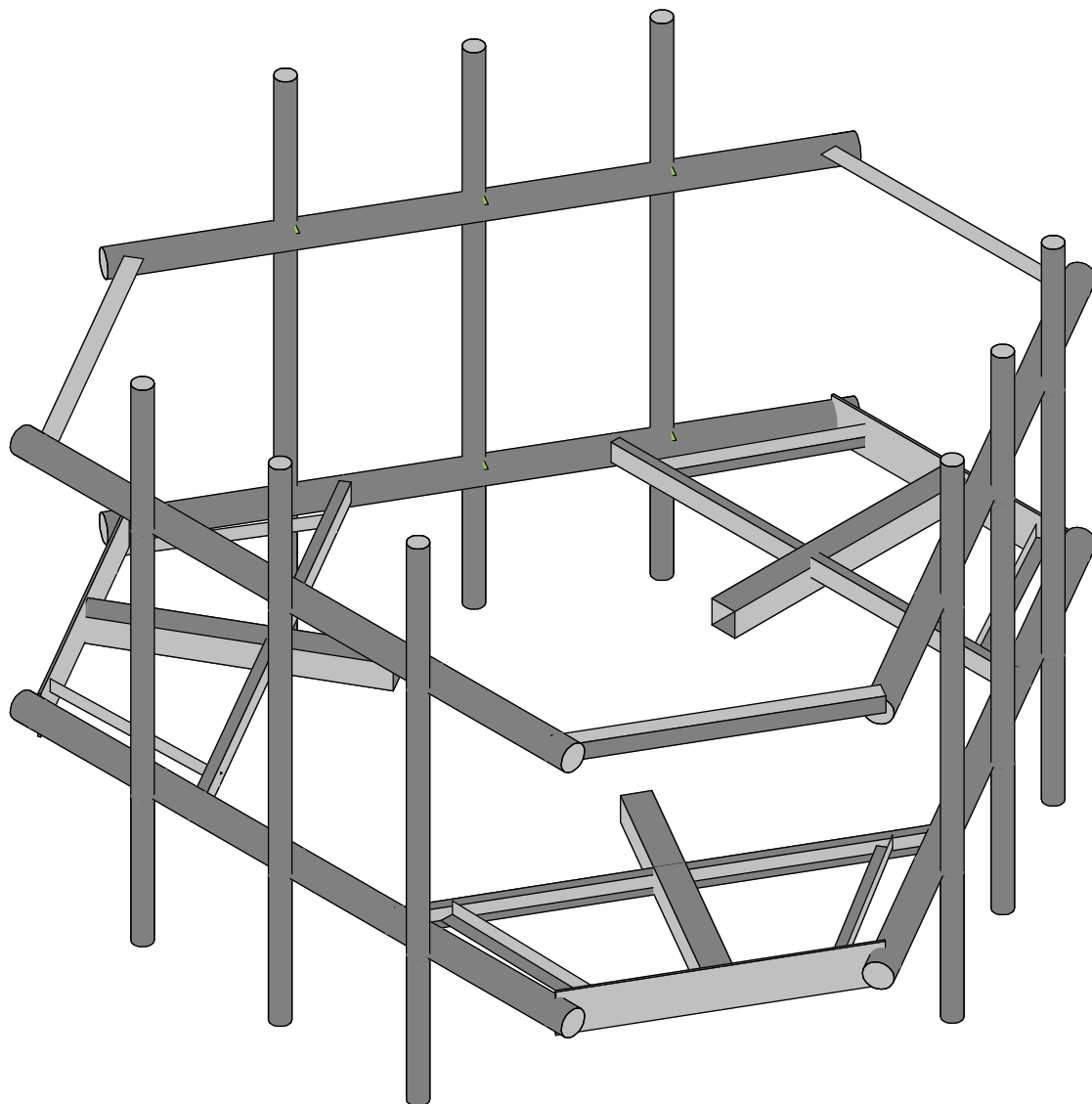
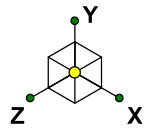
1. Commscope MC-PK8-DSH.

No structural modifications are required at this time, provided that the above-listed changes are implemented.

APPENDIX A
WIRE FRAME AND RENDERED MODELS



Infinigy Engineering	876320	WIREFRAME
FA		Sept 15, 2021 at 12:53 PM
1039-Z0001-B		MC-PK8-B_loaded.r3d



Infinigy Engineering

FA

1039-Z0001-B

876320

RENDERED

Sept 15, 2021 at 12:54 PM

MC-PK8-B_loaded.r3d

APPENDIX B
SOFTWARE INPUT CALCULATIONS

Program Inputs

PROJECT INFORMATION	
Client:	Crown Castle
Carrier:	Dish Network
Engineer:	Farhad Ahmadyar

SITE INFORMATION	
Risk Category:	II
Exposure Category:	C
Topo Factor Procedure:	Method 1, Category 1
Site Class:	D - Stiff Soil (Assumed)
Ground Elevation:	212.97 ft *Rev H

MOUNT INFORMATION	
Mount Type:	Platform
Num Sectors:	3
Centerline AGL:	86.00 ft
Tower Height AGL:	120.00 ft

TOPOGRAPHIC DATA	
Topo Feature:	N/A
Slope Distance:	N/A ft
Crest Distance:	N/A ft
Crest Height:	N/A ft

FACTORS	
Directionality Fact. (K_d):	0.950
Ground Ele. Factor (K_g):	0.992 *Rev H Only
Rooftop Speed-Up (K_s):	1.000 *Rev H Only
Topographic Factor (K_{zt}):	1.000
Gust Effect Factor (G_h):	1.000

CODE STANDARDS	
Building Code:	2015 IBC
TIA Standard:	TIA-222-H
ASCE Standard:	ASCE 7-10

WIND AND ICE DATA	
Ultimate Wind (V_{ult}):	119 mph
Design Wind (V):	N/A mph
Ice Wind (V_{ice}):	50 mph
Base Ice Thickness (t_i):	1.5 in
Flat Pressure:	64.697 psf
Round Pressure:	38.818 psf
Ice Wind Pressure:	6.853 psf

SEISMIC DATA	
Short-Period Accel. (S_s):	0.196 g
1-Second Accel. (S_1):	0.063 g
Short-Period Design (S_{DS}):	0.209
1-Second Design (S_{D1}):	0.101
Short-Period Coeff. (F_a):	1.600
1-Second Coeff. (F_v):	2.400
Amplification Factor (A_s):	3.000
Response Mod. Coeff. (R):	2.000



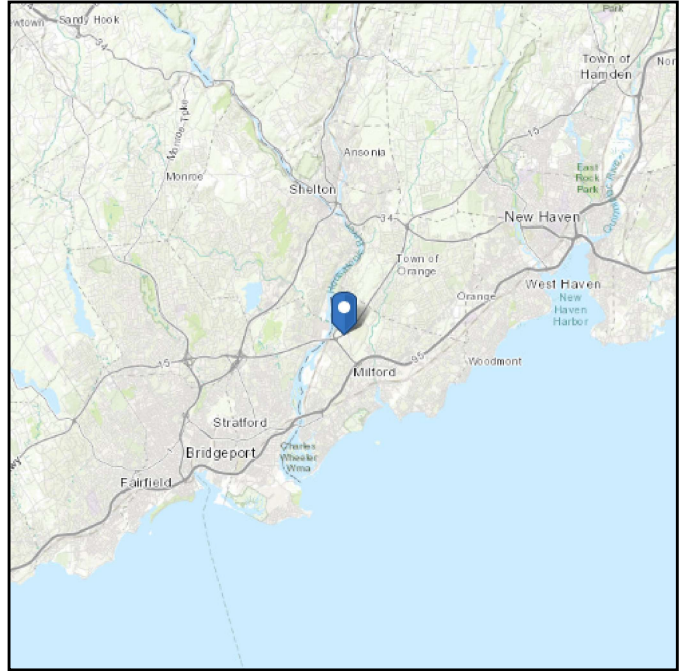
Infinigy Load Calculator V2.1.7

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 212.97 ft (NAVD 88)
Latitude: 41.248431
Longitude: -73.079075



Wind

Results:

Wind Speed:	
10-year MRI	77 Vmph
25-year MRI	87 Vmph
50-year MRI	93 Vmph
100-year MRI	100 Vmph

119 Vmph per the State of Connecticut allowing ASCE 7-16 wind speed values.

Data Source: ASCE/SEI 7-2010 Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

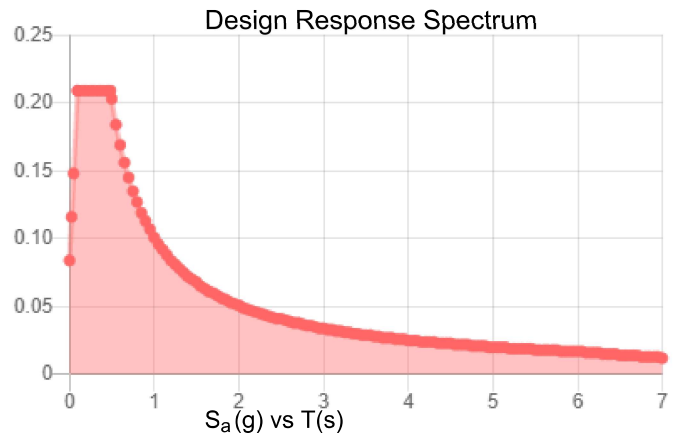
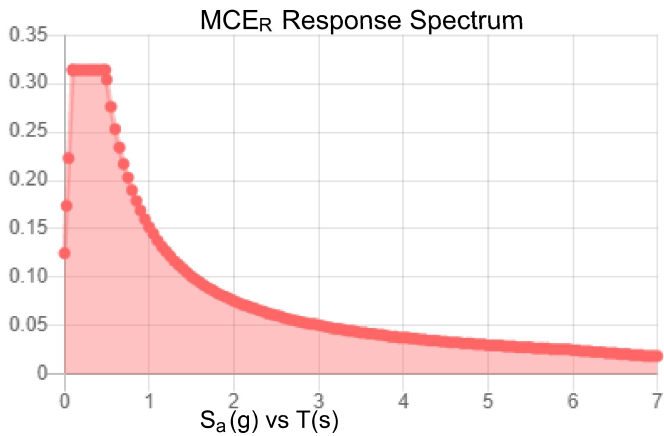
Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Stiff Soil

Results:

S_s :	0.196	S_{DS} :	0.209
S_1 :	0.063	S_{D1} :	0.101
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.104
S_{MS} :	0.314	PGA _M :	0.166
S_{M1} :	0.152	F _{PGA} :	1.591
		I_e :	1

Seismic Design Category B



Data Accessed:

Wed Sep 15 2021

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 0.75 in.

Concurrent Temperature: 15 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Wed Sep 15 2021

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

APPENDIX C
SOFTWARE ANALYSIS OUTPUT

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N5	N6			Channel 3" x 1...	Beam	Channel	A36 Gr.36	Typical
2	S3	N3	N1			Standoff	Beam	Tube	A500 Gr.B...	Typical
3	M3	N9	N12			L 2"x2"x3/16"	Beam	Single Angle	A36 Gr.36	Typical
4	M4	N10	N11			L 2"x2"x3/16"	Beam	Single Angle	A36 Gr.36	Typical
5	M5	N8	N7			6.5"x0.37" Plate	Beam	RECT	A36 Gr.36	Typical
6	M6	N17	N18			Channel 3" x 1...	Beam	Channel	A36 Gr.36	Typical
7	S2	N15	N13			Standoff	Beam	Tube	A500 Gr.B...	Typical
8	M8	N21	N24			L 2"x2"x3/16"	Beam	Single Angle	A36 Gr.36	Typical
9	M9	N22	N23			L 2"x2"x3/16"	Beam	Single Angle	A36 Gr.36	Typical
10	M10	N20	N19			6.5"x0.37" Plate	Beam	RECT	A36 Gr.36	Typical
11	M11	N29	N30			Channel 3" x 1...	Beam	Channel	A36 Gr.36	Typical
12	S1	N27	N25			Standoff	Beam	Tube	A500 Gr.B...	Typical
13	M13	N33	N36			L 2"x2"x3/16"	Beam	Single Angle	A36 Gr.36	Typical
14	M14	N34	N35			L 2"x2"x3/16"	Beam	Single Angle	A36 Gr.36	Typical
15	M15	N32	N31			6.5"x0.37" Plate	Beam	RECT	A36 Gr.36	Typical
16	HOR1	N44	N45			Horizontal	Beam	Pipe	A53 Gr.B	Typical
17	HOR3	N47	N48			Horizontal	Beam	Pipe	A53 Gr.B	Typical
18	HOR2	N50	N51			Horizontal	Beam	Pipe	A53 Gr.B	Typical
19	HR1	N48A	N49			Horizontal	Beam	Pipe	A53 Gr.B	Typical
20	HR3	N50A	N51A			Horizontal	Beam	Pipe	A53 Gr.B	Typical
21	HR2	N52	N53			Horizontal	Beam	Pipe	A53 Gr.B	Typical
22	M22	N57	N63			RIGID	None	None	RIGID	Typical
23	M23	N55	N61			RIGID	None	None	RIGID	Typical
24	M24	N56	N62			RIGID	None	None	RIGID	Typical
25	M25	N59	N65			RIGID	None	None	RIGID	Typical
26	M26	N54	N60			RIGID	None	None	RIGID	Typical
27	M27	N58	N64			RIGID	None	None	RIGID	Typical
28	MP3	N67	N70			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
29	MP2	N66	N69			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
30	MP1	N68	N71			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
31	M31	N74	N79			RIGID	None	None	RIGID	Typical
32	M32	N73	N77			RIGID	None	None	RIGID	Typical
33	M33	N75	N81			RIGID	None	None	RIGID	Typical
34	MP9	N83	N86			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
35	MP8	N82	N85			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
36	MP7	N84	N87			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
37	M37	N89	N94			RIGID	None	None	RIGID	Typical
38	M38	N88	N92			RIGID	None	None	RIGID	Typical
39	M39	N90	N96			RIGID	None	None	RIGID	Typical
40	MP6	N98	N101			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
41	MP5	N97	N100			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
42	MP4	N99	N102			Mount Pipes	Column	Pipe	A53 Gr.B	Typical
43	M43	N104	N78			RIGID	None	None	RIGID	Typical
44	M44	N103	N76			RIGID	None	None	RIGID	Typical
45	M45	N105	N80			RIGID	None	None	RIGID	Typical
46	M46	N110	N93			RIGID	None	None	RIGID	Typical
47	M47	N109	N91			RIGID	None	None	RIGID	Typical
48	M48	N111	N95			RIGID	None	None	RIGID	Typical
49	M49	N46	N47A		90	Handrail Plate	Beam	Single Angle	A36 Gr.36	Typical
50	M50	N44A	N45A		90	Handrail Plate	Beam	Single Angle	A36 Gr.36	Typical
51	M51	N42A	N43		90	Handrail Plate	Beam	Single Angle	A36 Gr.36	Typical



Hot Rolled Steel Properties

	Label	E [psi]	G [psi]	Nu	Therm (/1...	Density[lb/...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	2.9e+7	1.115e+7	.3	.65	490	50	1.1	65	1.1
2	A36 Gr.36	2.9e+7	1.115e+7	.3	.65	490	36	1.5	58	1.2
3	A572 Gr.50	2.9e+7	1.115e+7	.3	.65	490	50	1.1	65	1.1
4	A500 Gr.B RND	2.9e+7	1.115e+7	.3	.65	527	42	1.4	58	1.3
5	A500 Gr.B Rect	2.9e+7	1.115e+7	.3	.65	527	46	1.4	58	1.3
6	A53 Gr.B	2.9e+7	1.115e+7	.3	.65	490	35	1.6	60	1.2
7	A1085	2.9e+7	1.115e+7	.3	.65	490	50	1.4	65	1.3

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	6.5"x0.37" Pl...	6.5"x0.37...	Beam	RECT	A36 Gr.36	Typical	2.405	.027	8.468	.106
2	L 2"x2"x3/16"	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical	.722	.271	.271	.009
3	Handrail Plate	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical	.901	.535	.535	.011
4	Horizontal	PIPE_3.5	Beam	Pipe	A53 Gr.B	Typical	2.5	4.52	4.52	9.04
5	Handrail	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
6	Mount Pipes	PIPE_2.5	Column	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
7	Standoff	HSS4X4X4	Beam	Tube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
8	Channel 3" x ...	C3X5	Beam	Channel	A36 Gr.36	Typical	1.47	.241	1.85	.043

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	N1	20.78461	0	-12	0	
2	CP	0	0	-24	0	
3	N3	55.425626	0	8	0	
4	N4	34.641016	0	-4	0	
5	N5	17.212813	0	26.186533	0	
6	N6	52.069219	0	-34.186533	0	
7	N7	65.925626	0	-10.186533	0	
8	N8	44.925626	0	26.186533	0	
9	N9	20.641016	0	20.248711	0	
10	N10	48.641016	0	-28.248711	0	
11	N11	62.925626	0	-4.990381	0	
12	N12	47.925626	0	20.990381	0	
13	N13	-0.	0	-48	0	
14	N15	-0.	0	-88	0	
15	N16	-0.	0	-64	0	
16	N17	34.856406	0	-64	0	
17	N18	-34.856406	0	-64	0	
18	N19	-21	0	-88	0	
19	N20	21	0	-88	0	
20	N21	28	0	-64	0	
21	N22	-28	0	-64	0	
22	N23	-15	0	-88	0	
23	N24	15	0	-88	0	
24	N25	-20.78461	0	-12	0	
25	N27	-55.425626	0	8	0	
26	N28	-34.641016	0	-4	0	
27	N29	-52.069219	0	-34.186533	0	
28	N30	-17.212813	0	26.186533	0	
29	N31	-44.925626	0	26.186533	0	
30	N32	-65.925626	0	-10.186533	0	
31	N33	-48.641016	0	-28.248711	0	
32	N34	-20.641016	0	20.248711	0	



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
33	N35	-47.925626	0	20.990381	0	
34	N36	-62.925626	0	-4.990381	0	
35	N44	-48.000126	0	26.186533	0	
36	N45	48.000126	0	26.186533	0	
37	N47	67.462876	0	-7.523938	0	
38	N48	19.46275	0	-90.662595	0	
39	N50	-19.46275	0	-90.662595	0	
40	N51	-67.462876	0	-7.523938	0	
41	N42A	65.925626	40	-10.186533	0	
42	N43	44.925626	40	26.186533	0	
43	N44A	-21	40	-88	0	
44	N45A	21	40	-88	0	
45	N46	-44.925626	40	26.186533	0	
46	N47A	-65.925626	40	-10.186533	0	
47	N48A	-48.000126	40	26.186533	0	
48	N49	48.000126	40	26.186533	0	
49	N50A	67.462876	40	-7.523938	0	
50	N51A	19.46275	40	-90.662595	0	
51	N52	-19.46275	40	-90.662595	0	
52	N53	-67.462876	40	-7.523938	0	
53	N54	-0.000126	0	26.186533	0	
54	N55	-0.000126	40	26.186533	0	
55	N56	-24.000126	0	26.186533	0	
56	N57	-24.000126	40	26.186533	0	
57	N58	23.999874	0	26.186533	0	
58	N59	23.999874	40	26.186533	0	
59	N60	-0.000126	0	29.186533	0	
60	N61	-0.000126	40	29.186533	0	
61	N62	-24.000126	0	29.186533	0	
62	N63	-24.000126	40	29.186533	0	
63	N64	23.999874	0	29.186533	0	
64	N65	23.999874	40	29.186533	0	
65	N66	-0.000126	62	29.186533	0	
66	N67	-24.000126	62	29.186533	0	
67	N68	23.999874	62	29.186533	0	
68	N69	-0.000126	-22	29.186533	0	
69	N70	-24.000126	-22	29.186533	0	
70	N71	23.999874	-22	29.186533	0	
71	N73	43.462876	40	-49.093158	0	
72	N74	55.462876	40	-28.308548	0	
73	N75	31.462876	40	-69.877767	0	
74	N76	46.060952	0	-50.593158	0	
75	N77	46.060952	40	-50.593158	0	
76	N78	58.060952	0	-29.808548	0	
77	N79	58.060952	40	-29.808548	0	
78	N80	34.060952	0	-71.377767	0	
79	N81	34.060952	40	-71.377767	0	
80	N82	46.060952	62	-50.593158	0	
81	N83	58.060952	62	-29.808548	0	
82	N84	34.060952	62	-71.377767	0	
83	N85	46.060952	-22	-50.593158	0	
84	N86	58.060952	-22	-29.808548	0	
85	N87	34.060952	-22	-71.377767	0	
86	N88	-43.46275	40	-49.093376	0	
87	N89	-31.46275	40	-69.877985	0	
88	N90	-55.46275	40	-28.308766	0	
89	N91	-46.060826	0	-50.593376	0	



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
90	N92	-46.060826	40	-50.593376	0	
91	N93	-34.060826	0	-71.377985	0	
92	N94	-34.060826	40	-71.377985	0	
93	N95	-58.060826	0	-29.808766	0	
94	N96	-58.060826	40	-29.808766	0	
95	N97	-46.060826	62	-50.593376	0	
96	N98	-34.060826	62	-71.377985	0	
97	N99	-58.060826	62	-29.808766	0	
98	N100	-46.060826	-22	-50.593376	0	
99	N101	-34.060826	-22	-71.377985	0	
100	N102	-58.060826	-22	-29.808766	0	
101	N103	43.462876	0	-49.093158	0	
102	N104	55.462876	0	-28.308548	0	
103	N105	31.462876	0	-69.877767	0	
104	N109	-43.46275	0	-49.093376	0	
105	N110	-31.46275	0	-69.877985	0	
106	N111	-55.46275	0	-28.308766	0	

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	Channel 3" ...	69.713	28	28	28	28	28				Lateral
2	S3	Standoff	40	24	24	24	24	24				Lateral
3	M3	L 2"x2"x3/16"	27.295			Lbyy						Lateral
4	M4	L 2"x2"x3/16"	27.295			Lbyy						Lateral
5	M5	6.5"x0.37" P...	42			Lbyy						Lateral
6	M6	Channel 3" ...	69.713	28	28	28	28	28				Lateral
7	S2	Standoff	40	24	24	24	24	24				Lateral
8	M8	L 2"x2"x3/16"	27.295			Lbyy						Lateral
9	M9	L 2"x2"x3/16"	27.295			Lbyy						Lateral
10	M10	6.5"x0.37" P...	42			Lbyy						Lateral
11	M11	Channel 3" ...	69.713	28	28	28	28	28				Lateral
12	S1	Standoff	40	24	24	24	24	24				Lateral
13	M13	L 2"x2"x3/16"	27.295			Lbyy						Lateral
14	M14	L 2"x2"x3/16"	27.295			Lbyy						Lateral
15	M15	6.5"x0.37" P...	42			Lbyy						Lateral
16	HOR1	Horizontal	96	34.5	34.5	34.5	34.5	34.5				Lateral
17	HOR3	Horizontal	96	34.5	34.5	34.5	34.5	34.5				Lateral
18	HOR2	Horizontal	96	34.5	34.5	34.5	34.5	34.5				Lateral
19	HR1	Horizontal	96	34.5	34.5	34.5	34.5	34.5				Lateral
20	HR3	Horizontal	96	34.5	34.5	34.5	34.5	34.5				Lateral
21	HR2	Horizontal	96	34.5	34.5	34.5	34.5	34.5				Lateral
22	MP3	Mount Pipes	84									Lateral
23	MP2	Mount Pipes	84									Lateral
24	MP1	Mount Pipes	84									Lateral
25	MP9	Mount Pipes	84									Lateral
26	MP8	Mount Pipes	84									Lateral
27	MP7	Mount Pipes	84									Lateral
28	MP6	Mount Pipes	84									Lateral
29	MP5	Mount Pipes	84									Lateral
30	MP4	Mount Pipes	84									Lateral
31	M49	Handrail Pla...	42			Lbyy						Lateral
32	M50	Handrail Pla...	42			Lbyy						Lateral
33	M51	Handrail Pla...	42			Lbyy						Lateral



Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Self Weight	DL		-1			13		3
2	Wind Load AZI 0	WLZ					26		
3	Wind Load AZI 30	None					26		
4	Wind Load AZI 60	None					26		
5	Wind Load AZI 90	WLX					26		
6	Wind Load AZI 120	None					26		
7	Wind Load AZI 150	None					26		
8	Wind Load AZI 180	None					26		
9	Wind Load AZI 210	None					26		
10	Wind Load AZI 240	None					26		
11	Wind Load AZI 270	None					26		
12	Wind Load AZI 300	None					26		
13	Wind Load AZI 330	None					26		
14	Distr. Wind Load Z	WLZ						51	
15	Distr. Wind Load X	WLX						51	
16	Ice Weight	OL1					13	51	3
17	Ice Wind Load AZI 0	OL2					26		
18	Ice Wind Load AZI 30	None					26		
19	Ice Wind Load AZI 60	None					26		
20	Ice Wind Load AZI 90	OL3					26		
21	Ice Wind Load AZI 120	None					26		
22	Ice Wind Load AZI 150	None					26		
23	Ice Wind Load AZI 180	None					26		
24	Ice Wind Load AZI 210	None					26		
25	Ice Wind Load AZI 240	None					26		
26	Ice Wind Load AZI 270	None					26		
27	Ice Wind Load AZI 300	None					26		
28	Ice Wind Load AZI 330	None					26		
29	Distr. Ice Wind Load Z	OL2						51	
30	Distr. Ice Wind Load X	OL3						51	
31	Seismic Load Z	ELZ			-0.314		13		
32	Seismic Load X	ELX	-0.314				13		
33	Service Live Loads	LL				1			
34	Maintenance Load 1	LL				1			
35	Maintenance Load 2	LL				1			
36	Maintenance Load 3	LL				1			
37	Maintenance Load 4	LL				1			
38	Maintenance Load 5	LL				1			
39	Maintenance Load 6	LL				1			
40	Maintenance Load 7	LL				1			
41	Maintenance Load 8	LL				1			
42	Maintenance Load 9	LL				1			
43	BLC 1 Transient Area..	None						9	
44	BLC 16 Transient Are..	None						9	

Joint Loads and Enforced Displacements (BLC 33 : Service Live Loads)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N45	L	Y	-250

Joint Loads and Enforced Displacements (BLC 34 : Maintenance Load 1)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N56	L	Y	-500



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Joint Loads and Enforced Displacements (BLC 35 : Maintenance Load 2)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N54	L	Y	-500

Joint Loads and Enforced Displacements (BLC 36 : Maintenance Load 3)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N58	L	Y	-500

Joint Loads and Enforced Displacements (BLC 37 : Maintenance Load 4)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N104	L	Y	-500

Joint Loads and Enforced Displacements (BLC 38 : Maintenance Load 5)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N103	L	Y	-500

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Load 6)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N105	L	Y	-500

Joint Loads and Enforced Displacements (BLC 40 : Maintenance Load 7)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N110	L	Y	-500

Joint Loads and Enforced Displacements (BLC 41 : Maintenance Load 8)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N109	L	Y	-500

Joint Loads and Enforced Displacements (BLC 42 : Maintenance Load 9)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2...
1	N111	L	Y	-500

Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in. %]
1	MP1	Y	-41.25	6
2	MP1	Y	-41.25	66
3	MP1	Y	-63.9	20
4	MP1	Y	-75	40
5	MP1	Y	-21.85	60
6	MP4	Y	-41.25	6
7	MP4	Y	-41.25	66
8	MP4	Y	-63.9	20
9	MP4	Y	-75	40
10	MP7	Y	-41.25	6
11	MP7	Y	-41.25	66
12	MP7	Y	-63.9	20
13	MP7	Y	-75	40

Member Point Loads (BLC 2 : Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in. %]
1	MP1	X	0	6
2	MP1	Z	-116.6	6
3	MP1	X	0	66



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Point Loads (BLC 2 : Wind Load AZI 0) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
4	MP1	Z	-116.6	66
5	MP1	X	0	20
6	MP1	Z	-57.16	20
7	MP1	X	0	40
8	MP1	Z	-57.16	40
9	MP1	X	0	60
10	MP1	Z	-58.57	60
11	MP4	X	0	6
12	MP4	Z	-64.2	6
13	MP4	X	0	66
14	MP4	Z	-64.2	66
15	MP4	X	0	20
16	MP4	Z	-35.71	20
17	MP4	X	0	40
18	MP4	Z	-38.95	40
19	MP7	X	0	6
20	MP7	Z	-64.2	6
21	MP7	X	0	66
22	MP7	Z	-64.2	66
23	MP7	X	0	20
24	MP7	Z	-35.71	20
25	MP7	X	0	40
26	MP7	Z	-38.95	40

Member Point Loads (BLC 3 : Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-49.57	6
2	MP1	Z	-85.85	6
3	MP1	X	-49.57	66
4	MP1	Z	-85.85	66
5	MP1	X	-25.01	20
6	MP1	Z	-43.31	20
7	MP1	X	-25.55	40
8	MP1	Z	-44.25	40
9	MP1	X	-26.22	60
10	MP1	Z	-45.41	60
11	MP4	X	-49.57	6
12	MP4	Z	-85.85	6
13	MP4	X	-49.57	66
14	MP4	Z	-85.85	66
15	MP4	X	-25.01	20
16	MP4	Z	-43.31	20
17	MP4	X	-25.55	40
18	MP4	Z	-44.25	40
19	MP7	X	-23.36	6
20	MP7	Z	-40.47	6
21	MP7	X	-23.36	66
22	MP7	Z	-40.47	66
23	MP7	X	-14.28	20
24	MP7	Z	-24.74	20
25	MP7	X	-16.44	40
26	MP7	Z	-28.48	40

Member Point Loads (BLC 4 : Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-55.59	6

Member Point Loads (BLC 4 : Wind Load AZI 60) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
2	MP1	Z	-32.1	6
3	MP1	X	-55.59	66
4	MP1	Z	-32.1	66
5	MP1	X	-30.93	20
6	MP1	Z	-17.86	20
7	MP1	X	-33.73	40
8	MP1	Z	-19.48	40
9	MP1	X	-34.77	60
10	MP1	Z	-20.08	60
11	MP4	X	-100.98	6
12	MP4	Z	-58.3	6
13	MP4	X	-100.98	66
14	MP4	Z	-58.3	66
15	MP4	X	-49.51	20
16	MP4	Z	-28.58	20
17	MP4	X	-49.51	40
18	MP4	Z	-28.58	40
19	MP7	X	-55.59	6
20	MP7	Z	-32.1	6
21	MP7	X	-55.59	66
22	MP7	Z	-32.1	66
23	MP7	X	-30.93	20
24	MP7	Z	-17.86	20
25	MP7	X	-33.73	40
26	MP7	Z	-19.48	40

Member Point Loads (BLC 5 : Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-46.73	6
2	MP1	Z	0	6
3	MP1	X	-46.73	66
4	MP1	Z	0	66
5	MP1	X	-28.56	20
6	MP1	Z	0	20
7	MP1	X	-32.88	40
8	MP1	Z	0	40
9	MP1	X	-34.01	60
10	MP1	Z	0	60
11	MP4	X	-99.13	6
12	MP4	Z	0	6
13	MP4	X	-99.13	66
14	MP4	Z	0	66
15	MP4	X	-50.01	20
16	MP4	Z	0	20
17	MP4	X	-51.09	40
18	MP4	Z	0	40
19	MP7	X	-99.13	6
20	MP7	Z	0	6
21	MP7	X	-99.13	66
22	MP7	Z	0	66
23	MP7	X	-50.01	20
24	MP7	Z	0	20
25	MP7	X	-51.09	40
26	MP7	Z	0	40



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Point Loads (BLC 6 : Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-55.59	6
2	MP1	Z	32.1	6
3	MP1	X	-55.59	66
4	MP1	Z	32.1	66
5	MP1	X	-30.93	20
6	MP1	Z	17.86	20
7	MP1	X	-33.73	40
8	MP1	Z	19.48	40
9	MP1	X	-34.77	60
10	MP1	Z	20.08	60
11	MP4	X	-55.59	6
12	MP4	Z	32.1	6
13	MP4	X	-55.59	66
14	MP4	Z	32.1	66
15	MP4	X	-30.93	20
16	MP4	Z	17.86	20
17	MP4	X	-33.73	40
18	MP4	Z	19.48	40
19	MP7	X	-100.98	6
20	MP7	Z	58.3	6
21	MP7	X	-100.98	66
22	MP7	Z	58.3	66
23	MP7	X	-49.51	20
24	MP7	Z	28.58	20
25	MP7	X	-49.51	40
26	MP7	Z	28.58	40

Member Point Loads (BLC 7 : Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-49.57	6
2	MP1	Z	85.85	6
3	MP1	X	-49.57	66
4	MP1	Z	85.85	66
5	MP1	X	-25.01	20
6	MP1	Z	43.31	20
7	MP1	X	-25.55	40
8	MP1	Z	44.25	40
9	MP1	X	-26.22	60
10	MP1	Z	45.41	60
11	MP4	X	-23.36	6
12	MP4	Z	40.47	6
13	MP4	X	-23.36	66
14	MP4	Z	40.47	66
15	MP4	X	-14.28	20
16	MP4	Z	24.74	20
17	MP4	X	-16.44	40
18	MP4	Z	28.48	40
19	MP7	X	-49.57	6
20	MP7	Z	85.85	6
21	MP7	X	-49.57	66
22	MP7	Z	85.85	66
23	MP7	X	-25.01	20
24	MP7	Z	43.31	20
25	MP7	X	-25.55	40
26	MP7	Z	44.25	40



Member Point Loads (BLC 8 : Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	0	6
2	MP1	Z	116.6	6
3	MP1	X	0	66
4	MP1	Z	116.6	66
5	MP1	X	0	20
6	MP1	Z	57.16	20
7	MP1	X	0	40
8	MP1	Z	57.16	40
9	MP1	X	0	60
10	MP1	Z	58.57	60
11	MP4	X	0	6
12	MP4	Z	64.2	6
13	MP4	X	0	66
14	MP4	Z	64.2	66
15	MP4	X	0	20
16	MP4	Z	35.71	20
17	MP4	X	0	40
18	MP4	Z	38.95	40
19	MP7	X	0	6
20	MP7	Z	64.2	6
21	MP7	X	0	66
22	MP7	Z	64.2	66
23	MP7	X	0	20
24	MP7	Z	35.71	20
25	MP7	X	0	40
26	MP7	Z	38.95	40

Member Point Loads (BLC 9 : Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	49.57	6
2	MP1	Z	85.85	6
3	MP1	X	49.57	66
4	MP1	Z	85.85	66
5	MP1	X	25.01	20
6	MP1	Z	43.31	20
7	MP1	X	25.55	40
8	MP1	Z	44.25	40
9	MP1	X	26.22	60
10	MP1	Z	45.41	60
11	MP4	X	49.57	6
12	MP4	Z	85.85	6
13	MP4	X	49.57	66
14	MP4	Z	85.85	66
15	MP4	X	25.01	20
16	MP4	Z	43.31	20
17	MP4	X	25.55	40
18	MP4	Z	44.25	40
19	MP7	X	23.36	6
20	MP7	Z	40.47	6
21	MP7	X	23.36	66
22	MP7	Z	40.47	66
23	MP7	X	14.28	20
24	MP7	Z	24.74	20
25	MP7	X	16.44	40
26	MP7	Z	28.48	40



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Point Loads (BLC 10 : Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	55.59	6
2	MP1	Z	32.1	6
3	MP1	X	55.59	66
4	MP1	Z	32.1	66
5	MP1	X	30.93	20
6	MP1	Z	17.86	20
7	MP1	X	33.73	40
8	MP1	Z	19.48	40
9	MP1	X	34.77	60
10	MP1	Z	20.08	60
11	MP4	X	100.98	6
12	MP4	Z	58.3	6
13	MP4	X	100.98	66
14	MP4	Z	58.3	66
15	MP4	X	49.51	20
16	MP4	Z	28.58	20
17	MP4	X	49.51	40
18	MP4	Z	28.58	40
19	MP7	X	55.59	6
20	MP7	Z	32.1	6
21	MP7	X	55.59	66
22	MP7	Z	32.1	66
23	MP7	X	30.93	20
24	MP7	Z	17.86	20
25	MP7	X	33.73	40
26	MP7	Z	19.48	40

Member Point Loads (BLC 11 : Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	46.73	6
2	MP1	Z	0	6
3	MP1	X	46.73	66
4	MP1	Z	0	66
5	MP1	X	28.56	20
6	MP1	Z	0	20
7	MP1	X	32.88	40
8	MP1	Z	0	40
9	MP1	X	34.01	60
10	MP1	Z	0	60
11	MP4	X	99.13	6
12	MP4	Z	0	6
13	MP4	X	99.13	66
14	MP4	Z	0	66
15	MP4	X	50.01	20
16	MP4	Z	0	20
17	MP4	X	51.09	40
18	MP4	Z	0	40
19	MP7	X	99.13	6
20	MP7	Z	0	6
21	MP7	X	99.13	66
22	MP7	Z	0	66
23	MP7	X	50.01	20
24	MP7	Z	0	20
25	MP7	X	51.09	40
26	MP7	Z	0	40



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Point Loads (BLC 12 : Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	55.59	6
2	MP1	Z	-32.1	6
3	MP1	X	55.59	66
4	MP1	Z	-32.1	66
5	MP1	X	30.93	20
6	MP1	Z	-17.86	20
7	MP1	X	33.73	40
8	MP1	Z	-19.48	40
9	MP1	X	34.77	60
10	MP1	Z	-20.08	60
11	MP4	X	55.59	6
12	MP4	Z	-32.1	6
13	MP4	X	55.59	66
14	MP4	Z	-32.1	66
15	MP4	X	30.93	20
16	MP4	Z	-17.86	20
17	MP4	X	33.73	40
18	MP4	Z	-19.48	40
19	MP7	X	100.98	6
20	MP7	Z	-58.3	6
21	MP7	X	100.98	66
22	MP7	Z	-58.3	66
23	MP7	X	49.51	20
24	MP7	Z	-28.58	20
25	MP7	X	49.51	40
26	MP7	Z	-28.58	40

Member Point Loads (BLC 13 : Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	49.57	6
2	MP1	Z	-85.85	6
3	MP1	X	49.57	66
4	MP1	Z	-85.85	66
5	MP1	X	25.01	20
6	MP1	Z	-43.31	20
7	MP1	X	25.55	40
8	MP1	Z	-44.25	40
9	MP1	X	26.22	60
10	MP1	Z	-45.41	60
11	MP4	X	23.36	6
12	MP4	Z	-40.47	6
13	MP4	X	23.36	66
14	MP4	Z	-40.47	66
15	MP4	X	14.28	20
16	MP4	Z	-24.74	20
17	MP4	X	16.44	40
18	MP4	Z	-28.48	40
19	MP7	X	49.57	6
20	MP7	Z	-85.85	6
21	MP7	X	49.57	66
22	MP7	Z	-85.85	66
23	MP7	X	25.01	20
24	MP7	Z	-43.31	20
25	MP7	X	25.55	40
26	MP7	Z	-44.25	40



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	Y	-134.656	6
2	MP1	Y	-134.656	66
3	MP1	Y	-65.864	20
4	MP1	Y	-70.195	40
5	MP1	Y	-69.174	60
6	MP4	Y	-134.656	6
7	MP4	Y	-134.656	66
8	MP4	Y	-65.864	20
9	MP4	Y	-70.195	40
10	MP7	Y	-134.656	6
11	MP7	Y	-134.656	66
12	MP7	Y	-65.864	20
13	MP7	Y	-70.195	40

Member Point Loads (BLC 17 : Ice Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	0	6
2	MP1	Z	-16.17	6
3	MP1	X	0	66
4	MP1	Z	-16.17	66
5	MP1	X	0	20
6	MP1	Z	-6.26	20
7	MP1	X	0	40
8	MP1	Z	-6.26	40
9	MP1	X	0	60
10	MP1	Z	-6.59	60
11	MP4	X	0	6
12	MP4	Z	-12.49	6
13	MP4	X	0	66
14	MP4	Z	-12.49	66
15	MP4	X	0	20
16	MP4	Z	-5.13	20
17	MP4	X	0	40
18	MP4	Z	-5.32	40
19	MP7	X	0	6
20	MP7	Z	-12.49	6
21	MP7	X	0	66
22	MP7	Z	-12.49	66
23	MP7	X	0	20
24	MP7	Z	-5.13	20
25	MP7	X	0	40
26	MP7	Z	-5.32	40

Member Point Loads (BLC 18 : Ice Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-7.47	6
2	MP1	Z	-12.94	6
3	MP1	X	-7.47	66
4	MP1	Z	-12.94	66
5	MP1	X	-2.94	20
6	MP1	Z	-5.09	20
7	MP1	X	-2.97	40
8	MP1	Z	-5.15	40
9	MP1	X	-3.13	60
10	MP1	Z	-5.43	60
11	MP4	X	-7.47	6



Member Point Loads (BLC 18 : Ice Wind Load AZI 30) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
12	MP4	Z	-12.94	6
13	MP4	X	-7.47	66
14	MP4	Z	-12.94	66
15	MP4	X	-2.94	20
16	MP4	Z	-5.09	20
17	MP4	X	-2.97	40
18	MP4	Z	-5.15	40
19	MP7	X	-5.64	6
20	MP7	Z	-9.76	6
21	MP7	X	-5.64	66
22	MP7	Z	-9.76	66
23	MP7	X	-2.38	20
24	MP7	Z	-4.12	20
25	MP7	X	-2.5	40
26	MP7	Z	-4.34	40

Member Point Loads (BLC 19 : Ice Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-10.82	6
2	MP1	Z	-6.25	6
3	MP1	X	-10.82	66
4	MP1	Z	-6.25	66
5	MP1	X	-4.44	20
6	MP1	Z	-2.56	20
7	MP1	X	-4.61	40
8	MP1	Z	-2.66	40
9	MP1	X	-4.88	60
10	MP1	Z	-2.81	60
11	MP4	X	-14	6
12	MP4	Z	-8.08	6
13	MP4	X	-14	66
14	MP4	Z	-8.08	66
15	MP4	X	-5.42	20
16	MP4	Z	-3.13	20
17	MP4	X	-5.42	40
18	MP4	Z	-3.13	40
19	MP7	X	-10.82	6
20	MP7	Z	-6.25	6
21	MP7	X	-10.82	66
22	MP7	Z	-6.25	66
23	MP7	X	-4.44	20
24	MP7	Z	-2.56	20
25	MP7	X	-4.61	40
26	MP7	Z	-2.66	40

Member Point Loads (BLC 20 : Ice Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-11.27	6
2	MP1	Z	0	6
3	MP1	X	-11.27	66
4	MP1	Z	0	66
5	MP1	X	-4.75	20
6	MP1	Z	0	20
7	MP1	X	-5.01	40
8	MP1	Z	0	40
9	MP1	X	-5.31	60



Member Point Loads (BLC 20 : Ice Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
10	MP1	Z	0	60
11	MP4	X	-14.94	6
12	MP4	Z	0	6
13	MP4	X	-14.94	66
14	MP4	Z	0	66
15	MP4	X	-5.88	20
16	MP4	Z	0	20
17	MP4	X	-5.94	40
18	MP4	Z	0	40
19	MP7	X	-14.94	6
20	MP7	Z	0	6
21	MP7	X	-14.94	66
22	MP7	Z	0	66
23	MP7	X	-5.88	20
24	MP7	Z	0	20
25	MP7	X	-5.94	40
26	MP7	Z	0	40

Member Point Loads (BLC 21 : Ice Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-10.82	6
2	MP1	Z	6.25	6
3	MP1	X	-10.82	66
4	MP1	Z	6.25	66
5	MP1	X	-4.44	20
6	MP1	Z	2.56	20
7	MP1	X	-4.61	40
8	MP1	Z	2.66	40
9	MP1	X	-4.88	60
10	MP1	Z	2.81	60
11	MP4	X	-10.82	6
12	MP4	Z	6.25	6
13	MP4	X	-10.82	66
14	MP4	Z	6.25	66
15	MP4	X	-4.44	20
16	MP4	Z	2.56	20
17	MP4	X	-4.61	40
18	MP4	Z	2.66	40
19	MP7	X	-14	6
20	MP7	Z	8.08	6
21	MP7	X	-14	66
22	MP7	Z	8.08	66
23	MP7	X	-5.42	20
24	MP7	Z	3.13	20
25	MP7	X	-5.42	40
26	MP7	Z	3.13	40

Member Point Loads (BLC 22 : Ice Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-7.47	6
2	MP1	Z	12.94	6
3	MP1	X	-7.47	66
4	MP1	Z	12.94	66
5	MP1	X	-2.94	20
6	MP1	Z	5.09	20
7	MP1	X	-2.97	40



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Point Loads (BLC 22 : Ice Wind Load AZI 150) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
8	MP1	Z	5.15	40
9	MP1	X	-3.13	60
10	MP1	Z	5.43	60
11	MP4	X	-5.64	6
12	MP4	Z	9.76	6
13	MP4	X	-5.64	66
14	MP4	Z	9.76	66
15	MP4	X	-2.38	20
16	MP4	Z	4.12	20
17	MP4	X	-2.5	40
18	MP4	Z	4.34	40
19	MP7	X	-7.47	6
20	MP7	Z	12.94	6
21	MP7	X	-7.47	66
22	MP7	Z	12.94	66
23	MP7	X	-2.94	20
24	MP7	Z	5.09	20
25	MP7	X	-2.97	40
26	MP7	Z	5.15	40

Member Point Loads (BLC 23 : Ice Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	0	6
2	MP1	Z	16.17	6
3	MP1	X	0	66
4	MP1	Z	16.17	66
5	MP1	X	0	20
6	MP1	Z	6.26	20
7	MP1	X	0	40
8	MP1	Z	6.26	40
9	MP1	X	0	60
10	MP1	Z	6.59	60
11	MP4	X	0	6
12	MP4	Z	12.49	6
13	MP4	X	0	66
14	MP4	Z	12.49	66
15	MP4	X	0	20
16	MP4	Z	5.13	20
17	MP4	X	0	40
18	MP4	Z	5.32	40
19	MP7	X	0	6
20	MP7	Z	12.49	6
21	MP7	X	0	66
22	MP7	Z	12.49	66
23	MP7	X	0	20
24	MP7	Z	5.13	20
25	MP7	X	0	40
26	MP7	Z	5.32	40

Member Point Loads (BLC 24 : Ice Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	7.47	6
2	MP1	Z	12.94	6
3	MP1	X	7.47	66
4	MP1	Z	12.94	66
5	MP1	X	2.94	20



Member Point Loads (BLC 24 : Ice Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
6	MP1	Z	5.09	20
7	MP1	X	2.97	40
8	MP1	Z	5.15	40
9	MP1	X	3.13	60
10	MP1	Z	5.43	60
11	MP4	X	7.47	6
12	MP4	Z	12.94	6
13	MP4	X	7.47	66
14	MP4	Z	12.94	66
15	MP4	X	2.94	20
16	MP4	Z	5.09	20
17	MP4	X	2.97	40
18	MP4	Z	5.15	40
19	MP7	X	5.64	6
20	MP7	Z	9.76	6
21	MP7	X	5.64	66
22	MP7	Z	9.76	66
23	MP7	X	2.38	20
24	MP7	Z	4.12	20
25	MP7	X	2.5	40
26	MP7	Z	4.34	40

Member Point Loads (BLC 25 : Ice Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	10.82	6
2	MP1	Z	6.25	6
3	MP1	X	10.82	66
4	MP1	Z	6.25	66
5	MP1	X	4.44	20
6	MP1	Z	2.56	20
7	MP1	X	4.61	40
8	MP1	Z	2.66	40
9	MP1	X	4.88	60
10	MP1	Z	2.81	60
11	MP4	X	14	6
12	MP4	Z	8.08	6
13	MP4	X	14	66
14	MP4	Z	8.08	66
15	MP4	X	5.42	20
16	MP4	Z	3.13	20
17	MP4	X	5.42	40
18	MP4	Z	3.13	40
19	MP7	X	10.82	6
20	MP7	Z	6.25	6
21	MP7	X	10.82	66
22	MP7	Z	6.25	66
23	MP7	X	4.44	20
24	MP7	Z	2.56	20
25	MP7	X	4.61	40
26	MP7	Z	2.66	40

Member Point Loads (BLC 26 : Ice Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	11.27	6
2	MP1	Z	0	6
3	MP1	X	11.27	66



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Point Loads (BLC 26 : Ice Wind Load AZI 270) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
4	MP1	Z	0	66
5	MP1	X	4.75	20
6	MP1	Z	0	20
7	MP1	X	5.01	40
8	MP1	Z	0	40
9	MP1	X	5.31	60
10	MP1	Z	0	60
11	MP4	X	14.94	6
12	MP4	Z	0	6
13	MP4	X	14.94	66
14	MP4	Z	0	66
15	MP4	X	5.88	20
16	MP4	Z	0	20
17	MP4	X	5.94	40
18	MP4	Z	0	40
19	MP7	X	14.94	6
20	MP7	Z	0	6
21	MP7	X	14.94	66
22	MP7	Z	0	66
23	MP7	X	5.88	20
24	MP7	Z	0	20
25	MP7	X	5.94	40
26	MP7	Z	0	40

Member Point Loads (BLC 27 : Ice Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	10.82	6
2	MP1	Z	-6.25	6
3	MP1	X	10.82	66
4	MP1	Z	-6.25	66
5	MP1	X	4.44	20
6	MP1	Z	-2.56	20
7	MP1	X	4.61	40
8	MP1	Z	-2.66	40
9	MP1	X	4.88	60
10	MP1	Z	-2.81	60
11	MP4	X	10.82	6
12	MP4	Z	-6.25	6
13	MP4	X	10.82	66
14	MP4	Z	-6.25	66
15	MP4	X	4.44	20
16	MP4	Z	-2.56	20
17	MP4	X	4.61	40
18	MP4	Z	-2.66	40
19	MP7	X	14	6
20	MP7	Z	-8.08	6
21	MP7	X	14	66
22	MP7	Z	-8.08	66
23	MP7	X	5.42	20
24	MP7	Z	-3.13	20
25	MP7	X	5.42	40
26	MP7	Z	-3.13	40

Member Point Loads (BLC 28 : Ice Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	7.47	6



Member Point Loads (BLC 28 : Ice Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
2	MP1	Z	-12.94	6
3	MP1	X	7.47	66
4	MP1	Z	-12.94	66
5	MP1	X	2.94	20
6	MP1	Z	-5.09	20
7	MP1	X	2.97	40
8	MP1	Z	-5.15	40
9	MP1	X	3.13	60
10	MP1	Z	-5.43	60
11	MP4	X	5.64	6
12	MP4	Z	-9.76	6
13	MP4	X	5.64	66
14	MP4	Z	-9.76	66
15	MP4	X	2.38	20
16	MP4	Z	-4.12	20
17	MP4	X	2.5	40
18	MP4	Z	-4.34	40
19	MP7	X	7.47	6
20	MP7	Z	-12.94	6
21	MP7	X	7.47	66
22	MP7	Z	-12.94	66
23	MP7	X	2.94	20
24	MP7	Z	-5.09	20
25	MP7	X	2.97	40
26	MP7	Z	-5.15	40

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	Z	-12.936	6
2	MP1	Z	-12.936	66
3	MP1	Z	-20.039	20
4	MP1	Z	-23.52	40
5	MP1	Z	-6.852	60
6	MP4	Z	-12.936	6
7	MP4	Z	-12.936	66
8	MP4	Z	-20.039	20
9	MP4	Z	-23.52	40
10	MP7	Z	-12.936	6
11	MP7	Z	-12.936	66
12	MP7	Z	-20.039	20
13	MP7	Z	-23.52	40

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-12.936	6
2	MP1	X	-12.936	66
3	MP1	X	-20.039	20
4	MP1	X	-23.52	40
5	MP1	X	-6.852	60
6	MP4	X	-12.936	6
7	MP4	X	-12.936	66
8	MP4	X	-20.039	20
9	MP4	X	-23.52	40
10	MP7	X	-12.936	6
11	MP7	X	-12.936	66
12	MP7	X	-20.039	20



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Point Loads (BLC 32 : Seismic Load X) (Continued)

	Member Label	Direction	Magnitude[lb.ft]	Location[in.%]
13	MP7	X	-23.52	40

Member Distributed Loads (BLC 14 : Distr. Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[in.%]	End Location[in.%]
1	M1	SZ	-64.697	-64.697	0	%100
2	S3	SZ	-64.697	-64.697	0	%100
3	M3	SZ	-64.697	-64.697	0	%100
4	M4	SZ	-64.697	-64.697	0	%100
5	M5	SZ	-64.697	-64.697	0	%100
6	M6	SZ	-64.697	-64.697	0	%100
7	S2	SZ	-64.697	-64.697	0	%100
8	M8	SZ	-64.697	-64.697	0	%100
9	M9	SZ	-64.697	-64.697	0	%100
10	M10	SZ	-64.697	-64.697	0	%100
11	M11	SZ	-64.697	-64.697	0	%100
12	S1	SZ	-64.697	-64.697	0	%100
13	M13	SZ	-64.697	-64.697	0	%100
14	M14	SZ	-64.697	-64.697	0	%100
15	M15	SZ	-64.697	-64.697	0	%100
16	HOR1	SZ	-38.818	-38.818	0	%100
17	HOR3	SZ	-38.818	-38.818	0	%100
18	HOR2	SZ	-38.818	-38.818	0	%100
19	HR1	SZ	-38.818	-38.818	0	%100
20	HR3	SZ	-38.818	-38.818	0	%100
21	HR2	SZ	-38.818	-38.818	0	%100
22	M22	SZ	0	0	0	%100
23	M23	SZ	0	0	0	%100
24	M24	SZ	0	0	0	%100
25	M25	SZ	0	0	0	%100
26	M26	SZ	0	0	0	%100
27	M27	SZ	0	0	0	%100
28	MP3	SZ	-38.818	-38.818	0	%100
29	MP2	SZ	-38.818	-38.818	0	%100
30	MP1	SZ	-38.818	-38.818	0	%100
31	M31	SZ	0	0	0	%100
32	M32	SZ	0	0	0	%100
33	M33	SZ	0	0	0	%100
34	MP9	SZ	-38.818	-38.818	0	%100
35	MP8	SZ	-38.818	-38.818	0	%100
36	MP7	SZ	-38.818	-38.818	0	%100
37	M37	SZ	0	0	0	%100
38	M38	SZ	0	0	0	%100
39	M39	SZ	0	0	0	%100
40	MP6	SZ	-38.818	-38.818	0	%100
41	MP5	SZ	-38.818	-38.818	0	%100
42	MP4	SZ	-38.818	-38.818	0	%100
43	M43	SZ	0	0	0	%100
44	M44	SZ	0	0	0	%100
45	M45	SZ	0	0	0	%100
46	M46	SZ	0	0	0	%100
47	M47	SZ	0	0	0	%100
48	M48	SZ	0	0	0	%100
49	M49	SZ	-64.697	-64.697	0	%100
50	M50	SZ	-64.697	-64.697	0	%100
51	M51	SZ	-64.697	-64.697	0	%100



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Distributed Loads (BLC 15 : Distr. Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in, %]	End Location[in, %]
1	M1	SX	-64.697	-64.697	0	%100
2	S3	SX	-64.697	-64.697	0	%100
3	M3	SX	-64.697	-64.697	0	%100
4	M4	SX	-64.697	-64.697	0	%100
5	M5	SX	-64.697	-64.697	0	%100
6	M6	SX	-64.697	-64.697	0	%100
7	S2	SX	-64.697	-64.697	0	%100
8	M8	SX	-64.697	-64.697	0	%100
9	M9	SX	-64.697	-64.697	0	%100
10	M10	SX	-64.697	-64.697	0	%100
11	M11	SX	-64.697	-64.697	0	%100
12	S1	SX	-64.697	-64.697	0	%100
13	M13	SX	-64.697	-64.697	0	%100
14	M14	SX	-64.697	-64.697	0	%100
15	M15	SX	-64.697	-64.697	0	%100
16	HOR1	SX	-38.818	-38.818	0	%100
17	HOR3	SX	-38.818	-38.818	0	%100
18	HOR2	SX	-38.818	-38.818	0	%100
19	HR1	SX	-38.818	-38.818	0	%100
20	HR3	SX	-38.818	-38.818	0	%100
21	HR2	SX	-38.818	-38.818	0	%100
22	M22	SX	0	0	0	%100
23	M23	SX	0	0	0	%100
24	M24	SX	0	0	0	%100
25	M25	SX	0	0	0	%100
26	M26	SX	0	0	0	%100
27	M27	SX	0	0	0	%100
28	MP3	SX	-38.818	-38.818	0	%100
29	MP2	SX	-38.818	-38.818	0	%100
30	MP1	SX	-38.818	-38.818	0	%100
31	M31	SX	0	0	0	%100
32	M32	SX	0	0	0	%100
33	M33	SX	0	0	0	%100
34	MP9	SX	-38.818	-38.818	0	%100
35	MP8	SX	-38.818	-38.818	0	%100
36	MP7	SX	-38.818	-38.818	0	%100
37	M37	SX	0	0	0	%100
38	M38	SX	0	0	0	%100
39	M39	SX	0	0	0	%100
40	MP6	SX	-38.818	-38.818	0	%100
41	MP5	SX	-38.818	-38.818	0	%100
42	MP4	SX	-38.818	-38.818	0	%100
43	M43	SX	0	0	0	%100
44	M44	SX	0	0	0	%100
45	M45	SX	0	0	0	%100
46	M46	SX	0	0	0	%100
47	M47	SX	0	0	0	%100
48	M48	SX	0	0	0	%100
49	M49	SX	-64.697	-64.697	0	%100
50	M50	SX	-64.697	-64.697	0	%100
51	M51	SX	-64.697	-64.697	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in, %]	End Location[in, %]
1	M1	Y	-10.094	-10.094	0	%100
2	S3	Y	-14.738	-14.738	0	%100



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in.%]	End Location[in.%]
3	M3	-9.034	-9.034	0	%100
4	M4	-9.034	-9.034	0	%100
5	M5	-16.46	-16.46	0	%100
6	M6	-10.094	-10.094	0	%100
7	S2	-14.738	-14.738	0	%100
8	M8	-9.034	-9.034	0	%100
9	M9	-9.034	-9.034	0	%100
10	M10	-16.46	-16.46	0	%100
11	M11	-10.094	-10.094	0	%100
12	S1	-14.738	-14.738	0	%100
13	M13	-9.034	-9.034	0	%100
14	M14	-9.034	-9.034	0	%100
15	M15	-16.46	-16.46	0	%100
16	HOR1	-11.397	-11.397	0	%100
17	HOR3	-11.397	-11.397	0	%100
18	HOR2	-11.397	-11.397	0	%100
19	HR1	-11.397	-11.397	0	%100
20	HR3	-11.397	-11.397	0	%100
21	HR2	-11.397	-11.397	0	%100
22	M22	-3.329	-3.329	0	%100
23	M23	-3.329	-3.329	0	%100
24	M24	-3.329	-3.329	0	%100
25	M25	-3.329	-3.329	0	%100
26	M26	-3.329	-3.329	0	%100
27	M27	-3.329	-3.329	0	%100
28	MP3	-9.128	-9.128	0	%100
29	MP2	-9.128	-9.128	0	%100
30	MP1	-9.128	-9.128	0	%100
31	M31	-3.329	-3.329	0	%100
32	M32	-3.329	-3.329	0	%100
33	M33	-3.329	-3.329	0	%100
34	MP9	-9.128	-9.128	0	%100
35	MP8	-9.128	-9.128	0	%100
36	MP7	-9.128	-9.128	0	%100
37	M37	-3.329	-3.329	0	%100
38	M38	-3.329	-3.329	0	%100
39	M39	-3.329	-3.329	0	%100
40	MP6	-9.128	-9.128	0	%100
41	MP5	-9.128	-9.128	0	%100
42	MP4	-9.128	-9.128	0	%100
43	M43	-3.329	-3.329	0	%100
44	M44	-3.329	-3.329	0	%100
45	M45	-3.329	-3.329	0	%100
46	M46	-3.329	-3.329	0	%100
47	M47	-3.329	-3.329	0	%100
48	M48	-3.329	-3.329	0	%100
49	M49	-10.46	-10.46	0	%100
50	M50	-10.46	-10.46	0	%100
51	M51	-10.46	-10.46	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z)

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in.%]	End Location[in.%]
1	M1	-13.599	-13.599	0	%100
2	S3	-10.853	-10.853	0	%100
3	M3	-14.852	-14.852	0	%100
4	M4	-14.852	-14.852	0	%100



Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in, %]	End Location[in, %]
5	M5	SZ	-10.328	-10.328	0 %100
6	M6	SZ	-13.599	-13.599	0 %100
7	S2	SZ	-10.853	-10.853	0 %100
8	M8	SZ	-14.852	-14.852	0 %100
9	M9	SZ	-14.852	-14.852	0 %100
10	M10	SZ	-10.328	-10.328	0 %100
11	M11	SZ	-13.599	-13.599	0 %100
12	S1	SZ	-10.853	-10.853	0 %100
13	M13	SZ	-14.852	-14.852	0 %100
14	M14	SZ	-14.852	-14.852	0 %100
15	M15	SZ	-10.328	-10.328	0 %100
16	HOR1	SZ	-12.509	-12.509	0 %100
17	HOR3	SZ	-12.509	-12.509	0 %100
18	HOR2	SZ	-12.509	-12.509	0 %100
19	HR1	SZ	-12.509	-12.509	0 %100
20	HR3	SZ	-12.509	-12.509	0 %100
21	HR2	SZ	-12.509	-12.509	0 %100
22	M22	SZ	0	0	0 %100
23	M23	SZ	0	0	0 %100
24	M24	SZ	0	0	0 %100
25	M25	SZ	0	0	0 %100
26	M26	SZ	0	0	0 %100
27	M27	SZ	0	0	0 %100
28	MP3	SZ	-14.723	-14.723	0 %100
29	MP2	SZ	-14.723	-14.723	0 %100
30	MP1	SZ	-14.723	-14.723	0 %100
31	M31	SZ	0	0	0 %100
32	M32	SZ	0	0	0 %100
33	M33	SZ	0	0	0 %100
34	MP9	SZ	-14.723	-14.723	0 %100
35	MP8	SZ	-14.723	-14.723	0 %100
36	MP7	SZ	-14.723	-14.723	0 %100
37	M37	SZ	0	0	0 %100
38	M38	SZ	0	0	0 %100
39	M39	SZ	0	0	0 %100
40	MP6	SZ	-14.723	-14.723	0 %100
41	MP5	SZ	-14.723	-14.723	0 %100
42	MP4	SZ	-14.723	-14.723	0 %100
43	M43	SZ	0	0	0 %100
44	M44	SZ	0	0	0 %100
45	M45	SZ	0	0	0 %100
46	M46	SZ	0	0	0 %100
47	M47	SZ	0	0	0 %100
48	M48	SZ	0	0	0 %100
49	M49	SZ	-13.252	-13.252	0 %100
50	M50	SZ	-13.252	-13.252	0 %100
51	M51	SZ	-13.252	-13.252	0 %100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X)

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in, %]	End Location[in, %]
1	M1	SX	-13.599	-13.599	0 %100
2	S3	SX	-10.853	-10.853	0 %100
3	M3	SX	-14.852	-14.852	0 %100
4	M4	SX	-14.852	-14.852	0 %100
5	M5	SX	-10.328	-10.328	0 %100
6	M6	SX	-13.599	-13.599	0 %100



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 876320

Sept 15, 2021
 12:53 PM
 Checked By: _____

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in.-%]	End Location[in.-%]
7	S2	-10.853	-10.853	0	%100
8	M8	-14.852	-14.852	0	%100
9	M9	-14.852	-14.852	0	%100
10	M10	-10.328	-10.328	0	%100
11	M11	-13.599	-13.599	0	%100
12	S1	-10.853	-10.853	0	%100
13	M13	-14.852	-14.852	0	%100
14	M14	-14.852	-14.852	0	%100
15	M15	-10.328	-10.328	0	%100
16	HOR1	-12.509	-12.509	0	%100
17	HOR3	-12.509	-12.509	0	%100
18	HOR2	-12.509	-12.509	0	%100
19	HR1	-12.509	-12.509	0	%100
20	HR3	-12.509	-12.509	0	%100
21	HR2	-12.509	-12.509	0	%100
22	M22	0	0	0	%100
23	M23	0	0	0	%100
24	M24	0	0	0	%100
25	M25	0	0	0	%100
26	M26	0	0	0	%100
27	M27	0	0	0	%100
28	MP3	-14.723	-14.723	0	%100
29	MP2	-14.723	-14.723	0	%100
30	MP1	-14.723	-14.723	0	%100
31	M31	0	0	0	%100
32	M32	0	0	0	%100
33	M33	0	0	0	%100
34	MP9	-14.723	-14.723	0	%100
35	MP8	-14.723	-14.723	0	%100
36	MP7	-14.723	-14.723	0	%100
37	M37	0	0	0	%100
38	M38	0	0	0	%100
39	M39	0	0	0	%100
40	MP6	-14.723	-14.723	0	%100
41	MP5	-14.723	-14.723	0	%100
42	MP4	-14.723	-14.723	0	%100
43	M43	0	0	0	%100
44	M44	0	0	0	%100
45	M45	0	0	0	%100
46	M46	0	0	0	%100
47	M47	0	0	0	%100
48	M48	0	0	0	%100
49	M49	-13.252	-13.252	0	%100
50	M50	-13.252	-13.252	0	%100
51	M51	-13.252	-13.252	0	%100

Member Distributed Loads (BLC 43 : BLC 1 Transient Area Loads)

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in.-%]	End Location[in.-%]
1	S3	-3.185	-3.185	0	23.596
2	M3	-1.406	-1.406	.498	27.295
3	M4	-1.406	-1.406	.498	27.295
4	S2	-3.185	-3.185	0	23.596
5	M8	-1.406	-1.406	.498	27.295
6	M9	-1.406	-1.406	.498	27.295
7	S1	-3.185	-3.185	0	23.596
8	M13	-1.406	-1.406	.498	27.295



Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc.....	LC	phi*Pn...	phi*Pn...	phi*M...	phi*M...	Eqn	
12	M10	6.5"x0.37...	.190	21	2	.079	21 y	38	3513.8...	77922	600.647	6710.4...1	H1-1b
13	MP4	PIPE_2.5	.126	61.25	8	.034	61.25	7	33961...	50715	3596.25	3596.252	H1-1b
14	MP7	PIPE_2.5	.125	61.25	4	.032	61.25	3	33961...	50715	3596.25	3596.253	H1-1b
15	HOR1	PIPE_3.5	.125	72	110	.066	24	9	76140...	78750	7953.75	7953.751	H1-1b
16	MP1	PIPE_2.5	.124	61.25	12	.034	61.25	11	33961...	50715	3596.25	3596.253	H1-1b
17	HOR2	PIPE_3.5	.122	72	178	.063	24	5	76140...	78750	7953.75	7953.751	H1-1b
18	HOR3	PIPE_3.5	.122	72	138	.065	24	13	76140...	78750	7953.75	7953.751	H1-1b
19	MP9	PIPE_2.5	.121	61.25	8	.028	61.25	10	33961...	50715	3596.25	3596.252	H1-1b
20	MP6	PIPE_2.5	.120	61.25	12	.027	61.25	2	33961...	50715	3596.25	3596.253	H1-1b
21	MP3	PIPE_2.5	.118	61.25	4	.028	61.25	6	33961...	50715	3596.25	3596.254	H1-1b
22	M3	L2x2x3	.116	0	3	.023	0 y	36	18051...	23392.8	557.717	1239.292	H2-1
23	M13	L2x2x3	.116	0	11	.023	0 y	32	18051...	23392.8	557.717	1239.292	H2-1
24	M8	L2x2x3	.103	0	8	.023	0 y	28	18051...	23392.8	557.717	1239.292	H2-1
25	M4	L2x2x3	.095	0	10	.024	0 y	33	18051...	23392.8	557.717	1239.292	H2-1
26	M9	L2x2x3	.085	0	2	.023	0 y	37	18051...	23392.8	557.717	1239.292	H2-1
27	MP8	PIPE_2.5	.082	61.25	8	.044	61.25	9	33961...	50715	3596.25	3596.253	H1-1b
28	M14	L2x2x3	.081	0	6	.024	0 y	29	18051...	23392.8	557.717	1239.292	H2-1
29	MP5	PIPE_2.5	.081	61.25	12	.043	61.25	13	33961...	50715	3596.25	3596.253	H1-1b
30	MP2	PIPE_2.5	.079	61.25	4	.042	61.25	5	33961...	50715	3596.25	3596.254	H1-1b
31	HR1	PIPE_3.5	.054	47	90	.040	24	6	76140...	78750	7953.75	7953.751	H1-1b
32	HR2	PIPE_3.5	.054	48	166	.040	24	2	76140...	78750	7953.75	7953.751	H1-1b
33	HR3	PIPE_3.5	.054	47	130	.040	24	10	76140...	78750	7953.75	7953.751	H1-1b

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General				
2	RIGID		18	54	0
3	Total General		18	54	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	6.5"x0.37" Plate	3	126	85.929
7	A36 Gr.36	C3X5	3	209.1	87.177
8	A36 Gr.36	L2x2x3	6	163.8	33.529
9	A36 Gr.36	L2.5x2.5x3	3	126	32.192
10	A500 Gr.B Rect	HSS4X4X4	3	120	123.333
11	A53 Gr.B	PIPE 2.5	9	756	345.144
12	A53 Gr.B	PIPE 3.5	6	576	408.334
13	Total HR Steel		33	2076.9	1115.638

APPENDIX D
ADDITIONAL CALCUATIONS

Bolt Calculation Tool, V1.5.1

PROJECT DATA	
Site Name:	528 WHEELERS FARM RD
Site Number:	876320
Connection Description:	Mount to Tower

MAXIMUM BOLT LOADS	
Bolt Tension:	4895.87 lbs
Bolt Shear:	748.46 lbs

WORST CASE BOLT LOADS ¹	
Bolt Tension:	4895.87 lbs
Bolt Shear:	452.64 lbs

BOLT PROPERTIES	
Bolt Type:	Bolt
Bolt Diameter:	0.625 in
Bolt Grade:	A325
# of Bolts:	4
Threads Excluded?	No

¹ Worst case bolt loads correspond to Load combination #37 on member S3 in RISA-3D, which causes the maximum demand on the bolts.

Member Information	
J nodes of S3, S2, S1	

BOLT CHECK	
Tensile Strength	20340.15
Shear Strength	13805.83
Max Tensile Usage	24.1%
Max Shear Usage	5.4%
Interaction Check (Worst Case)	0.06
Result	Pass

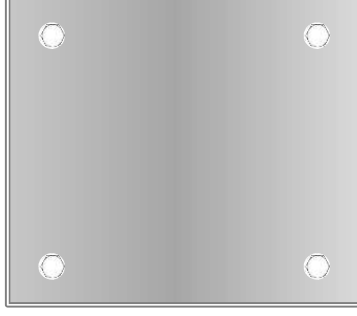


Exhibit F

Power Density/RF Emissions Report

**RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL
TO NON-IONIZING EMISSIONS**

Dish Wireless Existing Facility

Site ID: BOHVN00167A

876320

**528 Wheelers Farm Road
Milford, Connecticut 06460**

November 19, 2021

EBI Project Number: 6221007200

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	80.24%

November 19, 2021

Dish Wireless

Emissions Analysis for Site: BOHVN00167A - 876320

EBI Consulting was directed to analyze the proposed Dish Wireless facility located at **528 Wheelers Farm Road** in **Milford, Connecticut** for the purpose of determining whether the emissions from the Proposed Dish Wireless Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits; therefore, it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed Dish Wireless Wireless antenna facility located at 528 Wheelers Farm Road in Milford, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since Dish Wireless is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 4 n71 channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 4 n70 channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 3) 4 n66 channels (AWS Band - 2190 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 5) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative

estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 6) The antennas used in this modeling are the JMA MX08FRO665-20 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector A, the JMA MX08FRO665-20 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector B, the JMA MX08FRO665-20 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 7) The antenna mounting height centerline of the proposed antennas is 86 feet above ground level (AGL).
- 8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 9) All calculations were done with respect to uncontrolled / general population threshold limits.

Dish Wireless Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	I	Antenna #:	I	Antenna #:	I
Make / Model:	JMA MX08FRO665-20	Make / Model:	JMA MX08FRO665-20	Make / Model:	JMA MX08FRO665-20
Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz	Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz	Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz
Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd	Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd	Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd
Height (AGL):	86 feet	Height (AGL):	86 feet	Height (AGL):	86 feet
Channel Count:	12	Channel Count:	12	Channel Count:	12
Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts
ERP (W):	5,236.31	ERP (W):	5,236.31	ERP (W):	5,236.31
Antenna AI MPE %:	3.70%	Antenna BI MPE %:	3.70%	Antenna CI MPE %:	3.70%

Site Composite MPE %	
Carrier	MPE %
Dish Wireless (Max at Sector A):	3.70%
AT&T	14.52%
XM Radio	0.2%
Clearwire	0.15%
Sprint	4.09%
T-Mobile	19.89%
Metricom	0.67%
Verizon	37.02%
Site Total MPE % :	80.24%

Dish Wireless MPE % Per Sector	
Dish Wireless Sector A Total:	3.70%
Dish Wireless Sector B Total:	3.70%
Dish Wireless Sector C Total:	3.70%
Site Total MPE % :	80.24%

Dish Wireless Maximum MPE Power Values (Sector A)							
Dish Wireless Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Dish Wireless 600 MHz n71	4	223.68	86.0	5.03	600 MHz n71	400	1.26%
Dish Wireless 1900 MHz n70	4	542.70	86.0	12.19	1900 MHz n70	1000	1.22%
Dish Wireless 2190 MHz n66	4	542.70	86.0	12.19	2190 MHz n66	1000	1.22%
						Total:	3.70%

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the Dish Wireless facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Dish Wireless Sector	Power Density Value (%)
Sector A:	3.70%
Sector B:	3.70%
Sector C:	3.70%
Dish Wireless Maximum MPE % (Sector A):	3.70%
Site Total:	80.24%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **80.24%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

Exhibit G

Letter of Authorization



4545 E River Rd, Suite 320
West Henrietta, NY 14586

Phone: (585) 445-5896
Fax: (724) 416-4461
www.crowncastle.com

Crown Castle Letter of Authorization

CT - CONNECTICUT SITING COUNCIL

Melanie A. Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

**Re: Tower Share Application
Crown Castle telecommunications site at:
528 WHEELERS FARM ROAD, MILFORD, CT 06460**

GLOBAL SIGNAL ACQUISITIONS II LLC ("Crown Castle") hereby authorizes DISH Wireless LLC, including their Agent, to act as our Agent in the processing of all zoning applications, building permits and approvals through the CT - CONNECTICUT SITING COUNCIL for the existing wireless communications site described below:

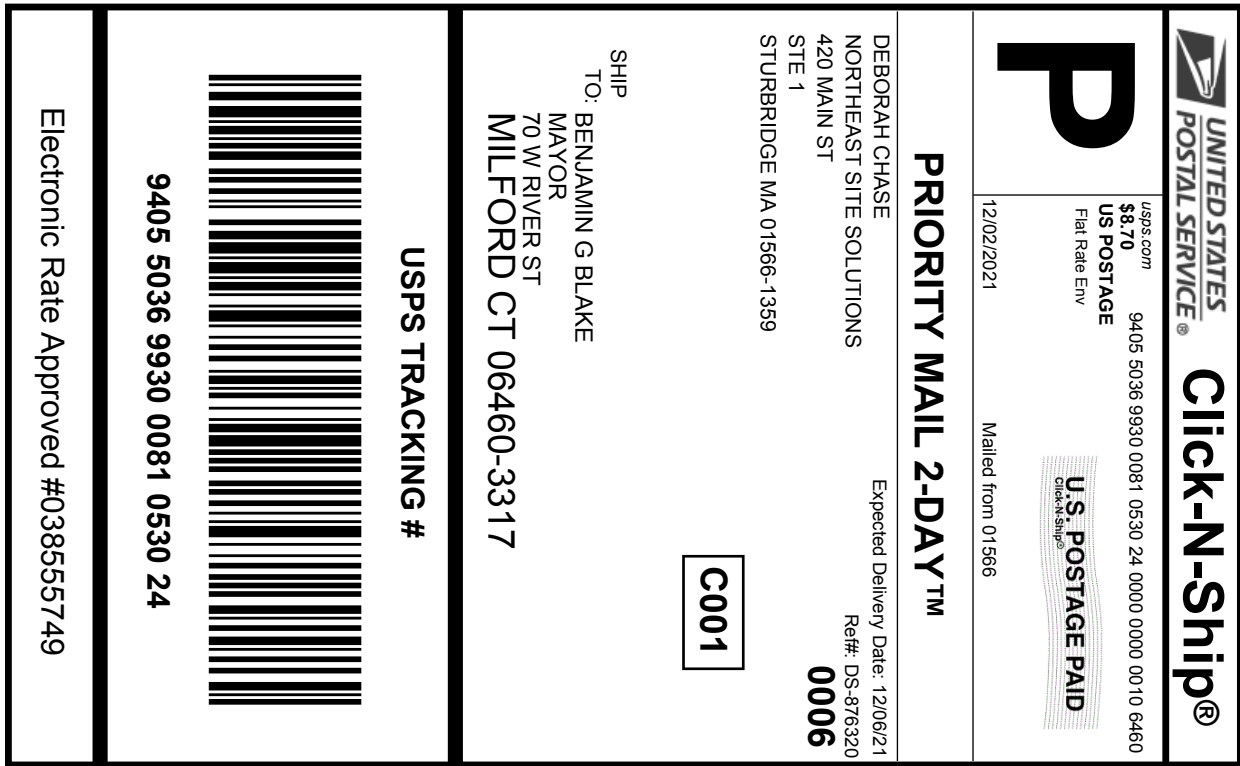
Crown Site ID/Name: 876320/528 WHEELERS FARM RD
Customer Site ID: BOHVN00167A/CT-CCI-T-876320
Site Address: 528 Wheelers Farm Road, MILFORD, CT 06460

Crown Castle

By:  Date: 11/23/2021
Richard Zajac
Site Acquisition Specialist

Exhibit H

Recipient Mailings



Cut on dotted line.

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

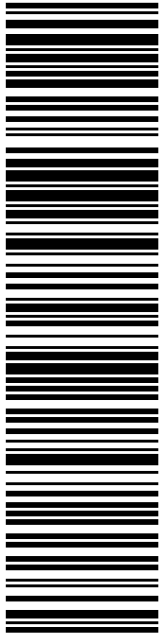
Click-N-Ship® Label Record

USPS TRACKING # :	
9405 5036 9930 0081 0530 24	
Trans. #:	549842599
Print Date:	12/02/2021
Ship Date:	12/02/2021
Expected Delivery Date:	12/06/2021
Priority Mail® Postage:	\$8.70
Total:	\$8.70
From:	DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359
To:	BENJAMIN G BLAKE MAYOR 70 W RIVER ST MILFORD CT 06460-3317
	Ref#: DS-876320

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



USPS TRACKING #

9405 5036 9930 0081 0530 31

Electronic Rate Approved #038555749

SHIP TO: DAVID B SULKIS
CITY PLANNER
70 W RIVER ST
MILFORD CT 06460-3317

SHIP TO: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

C001

P

12/02/2021

PRIORITY MAIL 2-DAY™

Expected Delivery Date: 12/06/21
Re#: DS-876320
0006

Mailed from 01566

USPS.com
US POSTAGE
Flat Rate Envoy

U.S. POSTAGE PAID
Click-N-Ship®

UNITED STATES POSTAL SERVICE® **Click-N-Ship®**



Cut on dotted line.

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0081 0530 31

Trans. #: 549842599	Priority Mail® Postage: \$8.70
Print Date: 12/02/2021	Total: \$8.70
Ship Date: 12/02/2021	
Expected Delivery Date: 12/06/2021	

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

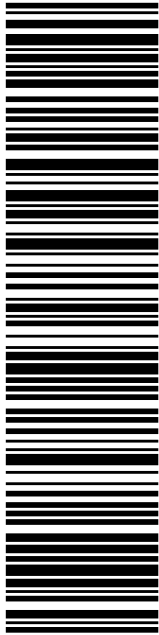
Re#: DS-876320

To: DAVID B SULKIS
CITY PLANNER
70 W RIVER ST
MILFORD CT 06460-3317

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



USPS TRACKING #

9405 5036 9930 0081 0530 48

Electronic Rate Approved #038555749

SHIP TO: RICH ZAJAC
CROWN CASTLE
4545 E RIVER RD
STE 320
W HENRIETTA NY 14586-9024

P

12/02/2021

PRIORITY MAIL 2-DAY™

Expected Delivery Date: 12/06/21
Re#: DS-876320
0006

R013

UNITED STATES POSTAL SERVICE®

Click-N-Ship®

usps.com 9405 5036 9930 0081 0530 48 0000 0000 0031 4586

US POSTAGE
Flat Rate Envoy

U.S. POSTAGE PAID
Click-N-Ship®

Mailed from 01566



Cut on dotted line.

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0081 0530 48

Trans. #: 549842599	Priority Mail® Postage: \$8.70
Print Date: 12/02/2021	Total: \$8.70
Ship Date: 12/02/2021	
Expected Delivery Date: 12/06/2021	

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

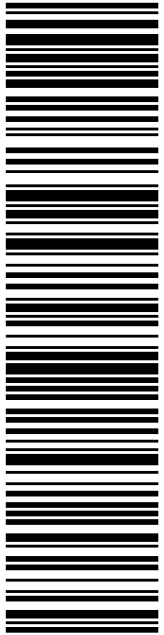
Re#: DS-876320

To: RICH ZAJAC
CROWN CASTLE
4545 E RIVER RD
STE 320
W HENRIETTA NY 14586-9024

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



USPS TRACKING #

9405 5036 9930 0081 0530 55

Electronic Rate Approved #038555749

SHIP TO:

VILLAGE FOUNDATION INC.
528 WHEELERS FARMS RD
MILFORD CT 06461-1847

P

US POSTAGE
Flat Rate Env
12/02/2021

U.S. POSTAGE PAID
click-n-ship®

Mailed from 01566

PRIORITY MAIL 2-DAY™

DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Expected Delivery Date: 12/06/21
Ref#: DS-876320
0006

C065

UNITED STATES POSTAL SERVICE®

Click-N-Ship®

usps.com
9405 5036 9930 0081 0530 55 0000 0000 0010 6461
\$8.70



Cut on dotted line.

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. **DO NOT PHOTO COPY OR ALTER LABEL.**
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, **DO NOT TAPE OVER BARCODE.** Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0081 0530 55

Trans. #: 549842599	Priority Mail® Postage: \$8.70
Print Date: 12/02/2021	Total: \$8.70
Ship Date: 12/02/2021	
Expected Delivery Date: 12/06/2021	

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: DS-876320

To: VILLAGE FOUNDATION INC.
528 WHEELERS FARMS RD
MILFORD CT 06461-1847

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com

826320



FARMINGTON
210 MAIN ST
FARMINGTON, CT 06032-9998
(800)275-8777

12/03/2021

12:45 PM

Product	Qty	Unit Price	Price
---------	-----	------------	-------

Prepaid Mail	1		\$0.00
West Henrietta, NY 14586			
Weight: 0 lb 2.00 oz			
Acceptance Date:			
Fri 12/03/2021			
Tracking #:			
9405 5036 9930 0081 0530 48			

Prepaid Mail	1		\$0.00
Milford, CT 06461			
Weight: 0 lb 8.70 oz			
Acceptance Date:			
Fri 12/03/2021			
Tracking #:			
9405 5036 9930 0081 0530 55			

Prepaid Mail	1		\$0.00
Milford, CT 06460			
Weight: 0 lb 8.70 oz			
Acceptance Date:			
Fri 12/03/2021			
Tracking #:			
9405 5036 9930 0081 0530 31			

Prepaid Mail	1		\$0.00
Milford, CT 06460			
Weight: 0 lb 8.70 oz			
Acceptance Date:			
Fri 12/03/2021			
Tracking #:			
9405 5036 9930 0081 0530 24			